

ALL THE YEAR ROUND.

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GREAT EXPECTATIONS.

BY CHARLES DICKENS.

CHAPTER XLV.

TURNING from the Temple gate as soon as I had read the warning, I made the best of my way to Fleet-street, and there got a late hackney chariot and drove to the Hummums in Covent Garden. In those times a bed was always to be got there at any hour of the night, and the chamberlain, letting me in at his ready wicket, lighted the candle next in order on his shelf, and showed me straight into the bedroom next in order on his list. It was a sort of vault on the ground floor at the back, with a despotic monster of a four-post bedstead in it, straddling over the whole place, putting one of his arbitrary legs into the fireplace and another into the doorway, and squeezing the wretched little washing-stand in quite a Divinely Righteous manner.

As I had asked for a night-light, the chamberlain had brought me in, before he left me, the good old constitutional rushlight of those virtuous days—an object like the ghost of a walking-cane, which instantly broke its back if it were touched, which nothing could ever be lighted at, and which was placed in solitary confinement at the bottom of a high tin tower, perforated with round holes that made a staringly wide-awake pattern on the walls. When I had got into bed, and lay there footsore, weary, and wretched, I found that I could no more close my own eyes than I could close the eyes of this foolish Argus. And thus, in the gloom and death of the night, we stared at one another.

What a doleful night! How anxious, how dismal, how long! There was an inhospitable smell in the room, of cold soot and hot dust; and, as I looked up into the corners of the tester over my head, I thought what a number of blue-bottle flies from the butchers', and earwigs from the market, and grubs from the country, must be holding on up there, lying by for next summer. This led me to speculate whether any of them ever tumbled down, and then I fancied that I felt light falls on my face—a disagreeable turn of thought, suggesting other and more objectionable approaches up my back. When I had lain awake a little while, those extraordinary voices with which silence teems, began to make

themselves audible. The closet whispered, the fireplace sighed, the little washing-stand ticked, and one guitar-string played occasionally in the chest of drawers. At about the same time the eyes on the wall acquired a new expression, and in every one of those staring rounds I saw written, DON'T GO HOME.

Whatever night-fancies and night-noises crowded on me, they never warded off this DON'T GO HOME. It plaited itself into whatever I thought of, as a bodily pain would have done. Not long before, I had read in the newspapers how a gentleman unknown had come to the Hummums in the night, and had gone to bed, and had destroyed himself, and had been found in the morning weltering in blood. It came into my head that he must have occupied this very vault of mine, and I got out of bed to assure myself that there were no red marks about; then opened the door to look out into the passages, and cheer myself with the companionship of a distant light, near which I knew the chamberlain to be dozing. But all this time, why I was not to go home, and what had happened at home, and when I should go home, and whether Provis was safe at home, were questions occupying my mind so busily, that one might have supposed there could be no room in it for any other theme. Even when I thought of Estella, and how we had parted that day for ever, and when I recalled all the circumstances of our parting, and all her looks and tones, and the action of her fingers while she knitted—even then I was pursuing, here and there and everywhere, the caution Don't go home. When at last I dozed, in sheer exhaustion of mind and body, it became a vast shadowy verb which I had to conjugate. Imperative mood, present tense: Do not thou go home, let him not go home, Let us not go home, do not ye or you go home, let not them go home. Then, potentially: I may not and I cannot go home; and I might not, could not, would not, and should not go home; until I felt that I was going distracted, and rolled over on the pillow, and looked at the staring rounds upon the wall again.

I had left directions that I was to be called at seven; for it was plain that I must see Wemmick before seeing any one else, and equally plain that this was a case in which his Walworth sentiments, only, could be taken. It was a relief to get out of the room where the night had been so miserable, and I needed no

second knocking at the door to startle me from my uneasy bed.

The Castle battlements arose upon my view at eight o'clock. The little servant happening to be entering the fortress with two hot rolls, I passed through the postern and crossed the drawbridge, in her company, and so came without announcement into the presence of Wemmick as he was making tea for himself and the Aged. An open door afforded a perspective view of the Aged in bed.

"Halloa, Mr. Pip!" said Wemmick. "You did come home, then?"

"Yes," I returned; "but I didn't go home."

"That's all right," said he, rubbing his hands.

"I left a note for you at each of the Temple gates, on the chance. Which gate did you come to?"

I told him.

"I'll go round to the others in the course of the day and destroy the notes," said Wemmick; "it's a good rule never to leave documentary evidence if you can help it, because you don't know when it may be put in. I'm going to take a liberty with you.—*Would you mind toasting this sausage for the Aged P.?*"

I said I should be delighted to do it.

"Then you can go about your work, Mary Anne," said Wemmick to the little servant; "which leaves us to ourselves, don't you see, Mr. Pip?" he added, winking, as she disappeared.

I thanked him for his friendship and caution, and our discourse proceeded in a low tone, while I toasted the Aged's sausage and he buttered the crumb of the Aged's roll.

"Now, Mr. Pip, you know," said Wemmick, "you and I understand one another. We are in our private and personal capacities, and we have been engaged in a confidential transaction before to-day. Official sentiments are one thing. We are extra official."

I cordially assented. I was so very nervous, that I had already lighted the Aged's sausage like a torch, and been obliged to blow it out.

"I accidentally heard, yesterday morning," said Wemmick, "being in a certain place where I once took you—even between you and me, it's as well not to mention names when avoidable—"

"Much better not," said I. "I understand you."

"I heard there, by chance, yesterday morning," said Wemmick, "that a certain person not altogether of uncolonial pursuits, and not unpossessed of portable property—I don't know who it may really be—we won't name this person—"

"Not necessary," said I.

"—had made some little stir in a certain part of the world where a good many people go, not always in gratification of their own inclinations, and not quite irrespective of the government expense—"

In watching his face, I made quite a firework of the Aged's sausage, and greatly discomposed both my own attention and Wemmick's; for which I apologized.

"—by disappearing from such place, and being no more heard of thereabouts. From which," said Wemmick, "conjectures had been raised and theories formed. I also heard that you at your chambers in Garden-court, Temple, had been watched, and might be watched again."

"By whom?" said I.

"I wouldn't go into that," said Wemmick, evasively, "it might clash with official responsibilities. I heard it, as I have in my time heard other curious things in the same place. I don't tell it you on information received. I heard it."

He took the toasting-fork and sausage from me as he spoke, and set forth the Aged's breakfast neatly on a little tray. Previous to placing it before him, he went into the Aged's room with a clean white cloth, and tied the same under the old gentleman's chin, and propped him up, and put his nightcap on one side, and gave him quite a rakish air. Then he placed his breakfast before him with great care, and said, "All right, ain't you, Aged P.?" To which the cheerful Aged replied, "All right, John, my boy, all right!" As there seemed to be a tacit understanding that the Aged was not in a presentable state, and was therefore to be considered invisible, I made a pretence of being in complete ignorance of these proceedings.

"This watching of me at my chambers (which I have once had reason to suspect)," I said to Wemmick when he came back, "is inseparable from the person to whom you have adverted; is it?"

Wemmick looked very serious. "I couldn't undertake to say that, of my own knowledge. I mean, I couldn't undertake to say it was at first. But it either is, or it will be, or it's in great danger of being."

As I saw that he was restrained by fealty to Little Britain from saying as much as he could, and as I knew with thankfulness to him how far out of his way he went to say what he did, I could not press him. But I told him, after a little meditation over the fire, that I would like to ask him a question, subject to his answering or not answering, as he deemed right, and sure that his course would be right. He paused in his breakfast, and crossing his arms, and pinching his shirt-sleeves (his notion of in-door comfort was to sit without any coat), he nodded to me once, to put my question.

"You have heard of a man of bad character, whose true name is Compeyson?"

He answered with one other nod.

"Is he living?"

One other nod.

"Is he in London?"

He gave me one other nod, compressed the post-office exceedingly, gave me one last nod, and went on with his breakfast.

"Now," said Wemmick, "questioning being over;" which he emphasised and repeated for my guidance; "I come to what I did after hearing what I heard. I went to Garden-court to find you; not finding you, I went to Clariker's to find Mr. Herbert."

"And him you found?" said I, with great anxiety.

"And him I found. Without mentioning any names or going into any details, I gave him to understand that if he was aware of anybody—Tom, Jack, or Richard—being about the chambers, or about the immediate neighbourhood, he had better get Tom, Jack, or Richard, out of the way while you were out of the way."

"He would be greatly puzzled what to do?"

"He *was* puzzled what to do; not the less, because I gave him my opinion that it was not safe to try to get Tom, Jack, or Richard, too far out of the way at present. Mr. Pip, I'll tell you something. Under existing circumstances there is no place like a great city when you are once in it. Don't break cover too soon. Lie close. Wait till things slacken, before you try the open, even for foreign air."

I thanked him for his valuable advice, and asked him what Herbert had done.

"Mr. Herbert," said Wemmick, "after being all of a heap for half an hour, struck out a plan. He mentioned to me as a secret, that he is courting a young lady who has, as no doubt you are aware, a bedridden Pa. Which Pa, having been in the Purser line of life, lies a-bed in a bow-window where he can see the ships sail up and down the river. You are acquainted with the young lady, most probably?"

"Not personally," said I.

The truth was, that she had objected to me as an expensive companion who did Herbert no good, and that when Herbert had first proposed to present me to her she had received the proposal with such very moderate warmth, that Herbert had felt himself obliged to confide the state of the case to me, with a view to the passage of a little time before I made her acquaintance. When I had begun to advance Herbert's prospects by stealth, I had been able to bear this with cheerful philosophy; he and his affianced, for their part, had naturally not been very anxious to introduce a third person into their interviews; and thus, although I was assured that I had risen in Clara's esteem, and although the young lady and I had long regularly interchanged messages and remembrances by Herbert, I had never seen her. However, I did not trouble Wemmick with these particulars.

"The house with the bow-window," said Wemmick, "being by the river-side, down the Pool there, between Limehouse and Greenwich, and being kept, it seems, by a very respectable widow who has a furnished upper floor to let, Mr. Herbert put it to me, what did I think of that as a temporary tenement for Tom, Jack, or Richard? Now, I thought very well of it, for three reasons I'll give you. That is to say. Firstly. It's altogether out of all your beats, and is well away from the usual heap of streets great and small. Secondly. Without going near it yourself, you could always hear of the safety of Tom, Jack, or Richard, through Mr. Herbert. Thirdly. After a while and when it might be prudent, if you should want to slip Tom, Jack,

or Richard, on board a foreign packet-boat, there he is—ready."

Much comforted by these considerations, I thanked Wemmick again and again, and begged him to proceed.

"Well, sir! Mr. Herbert threw himself into the business with a will, and by nine o'clock last night he housed Tom, Jack, or Richard—which ever it may be—you and I don't want to know—quite successfully. At the old lodgings it was understood that he was summoned to Dover, and in fact he was taken down the Dover road and cornered out of it. Now, another great advantage of all this, is, that it was done without you, and when, if any one was concerning himself about your movements, you must be known to be ever so many miles off and quite otherwise engaged. This diverts suspicion and confuses it; and for the same reason I recommended that even if you came back last night, you should not go home. It brings in more confusion, and you want confusion."

Wemmick, having finished his breakfast, here looked at his watch, and began to get his coat on.

"And now, Mr. Pip," said he, with his hands still in the sleeves, "I have probably done the most I can do; but if I can ever do more—from a Walworth point of view, and in a strictly private and personal capacity—I shall be glad to do it. Here's the address. There can be no harm in your going here to-night and seeing for yourself that all is well with Tom, Jack or Richard, before you go home—which is another reason for your not going home last night. But after you have gone home, don't go back here. You are very welcome, I am sure, Mr. Pip;" his hands were now out of his sleeves, and I was shaking them; "and let me finally impress one important point upon you." He laid his hands upon my shoulders, and added in a solemn whisper: "Avail yourself of this evening to lay hold of his portable property. You don't know what may happen to him. Don't let anything happen to the portable property."

Quite despairing of making my mind clear to Wemmick on this point, I forbore to try.

"Time's up," said Wemmick, "and I must be off. If you had nothing more pressing to do than to keep here till dark, that's what I should advise. You look very much worried, and it would do you good to have a perfectly quiet day with the Aged—he'll be up presently—and a little bit of—you remember the pig?"

"Of course," said I.

"Well; and a little bit of *him*. That sausage you toasted was his, and he was in all respects a first-rater. Do try him, if it is only for old acquaintance' sake. Good-by, Aged Parent!" in a cheery shout.

"All right, John; all right, my boy!" piped the old man from within.

I soon fell asleep before Wemmick's fire, and the Aged and I enjoyed one another's society by falling asleep before it more or less all day. We had loin of pork for dinner, and greens grown on the estate, and I nodded at the Aged

with a good intention whenever I failed to do it accidentally. When it was quite dark, I left the Aged preparing the fire for toast; and I inferred from the number of teacups, as well as from his glances at the two little doors in the wall, that Miss Skiffins was expected.

CHAPTER XLVI.

EIGHT o'clock had struck before I got into the air that was scented, not disagreeably, by the chips and shavings of the long-shore boat-builders, and mast oar and block makers. All that water-side region of the upper and lower Pool below Bridge, was unknown ground to me, and when I struck down by the river, I found that the spot I wanted was not where I had supposed it to be, and was anything but easy to find. It was called Mill Pond Bank, Chinks's Basin; and I had no other guide to Chinks's Basin than the Old Green Copper Rope-Walk.

It matters not what stranded ships repairing in dry docks I lost myself among, what old hulls of ships in course of being knocked to pieces, what ooze and slime and other dregs of tide, what yards of ship-builders and ship-breakers, what rusty anchors blindly biting into the ground though for years off duty, what mountainous country of accumulated casks and timber, and how many rope-walks that were not the Old Green Copper. After several times falling short of my destination and as often overshooting it, I came unexpectedly round a corner, upon Mill Pond Bank. It was a fresh kind of place, all circumstances considered, where the wind from the river had room to turn itself round; and there were two or three trees in it, and there was the stump of a ruined windmill, and there was the Old Green Copper Rope-Walk—whose long and narrow vista I could trace in the moonlight, along a series of wooden frames set in the ground, that looked like superannuated haymaking-rakes which had grown old and lost most of their teeth.

Selecting from the few queer houses upon Mill Pond Bank, a house with a wooden front and three stories of bow-window (not bay-windows, which is another thing), I looked at the plate upon the door, and read there, Mrs. Whimple. That being the name I wanted, I knocked, and an elderly woman of a pleasant and thriving appearance responded. She was immediately deposed, however, by Herbert, who silently led me into the parlour and shut the door. It was an odd sensation to see his very familiar face established quite at home in that very unfamiliar room and region; and I found myself looking at him, much as I looked at the corner-cupboard with the glass and china, the shells upon the chimney-piece, and the coloured engravings on the wall, representing the death of Captain Cook, a ship-launch, and his Majesty King George Third in a state-coachman's wig, leather-breeches, and top-boots, on the terrace at Windsor.

"All is well, Handel," said Herbert, "and he is quite satisfied, though eager to see you. My dear girl is with her father; and if you'll wait

till she comes down, I'll make you known to her, and then we'll go up-stairs.—*That's her father!*"

I had become aware of an alarming growling overhead, and had probably expressed the fact in my countenance.

"I am afraid he is a sad old rascal," said Herbert, smiling, "but I have never seen him. Don't you smell rum? He is always at it."

"At rum?" said I.

"Yes," returned Herbert, "and you may suppose how mild it makes his gout. He persists, too, in keeping all the provisions up-stairs in his room, and serving them out. He keeps them on shelves over his head, and *will* weigh them all. His room must be like a chandler's shop."

While he thus spoke, the growling noise became a prolonged roar, and then died away.

"What else can be the consequence," said Herbert, in explanation, "if he *will* cut the cheese? A man with the gout in his right hand—and everywhere else—can't expect to get through a Double Gloucester without hurting himself."

He seemed to have hurt himself very much, for he gave another furious roar.

"To have Provis for an upper lodger is quite a godsend to Mrs. Whimple," said Herbert, "for of course people in general won't stand that noise. A curious place, Handel; isn't it?"

It was a curious place, indeed; but remarkably well kept and clean.

"Mrs. Whimple," said Herbert, when I told him so, "is the best of housewives, and I really do not know what my Clara would do without her motherly help. For, Clara has no mother of her own, Handel, and no relation in the world but old Gruffandgrim."

"Surely that's not his name, Herbert?"

"No, no," said Herbert, "that's my name for him. His name is Mr. Barley. But what a blessing it is for the son of my father and mother to love a girl who has no relations, and who can never bother herself, or anybody else, about her family!"

Herbert had told me on former occasions, and now reminded me, that he first knew Miss Clara Barley when she was completing her education at an establishment at Hammersmith, and that on her being recalled home to nurse her father, he and she had confided their affection to the motherly Mrs. Whimple, by whom it had been fostered and regulated with equal kindness and discretion, ever since. It was understood that nothing of a tender nature could be confided to Old Barley, by reason of his being totally unequal to the consideration of any subject more psychological than Gout, Rum, and Purser's stores.

As we were thus conversing in a low tone while Old Barley's sustained growl vibrated in the beam that crossed the ceiling, the room door opened, and a very pretty slight dark-eyed girl of twenty or so, came in with a basket in her hand: whom Herbert tenderly relieved of the basket, and presented blushing, as "Clara." She really

was a most charming girl, and might have passed for a captive fairy whom that truculent Ogre, Old Barley, had pressed into his service.

"Look here," said Herbert, showing me the basket with a compassionate and tender smile after we had talked a little; "here's poor Clara's supper, served out every night. Here's her allowance of bread, and here's her slice of cheese, and here's her rum—which I drink. This is Mr. Barley's breakfast for to-morrow, served out to be cooked. Two mutton chops, three potatoes, some split peas, a little flour, two ounces of butter, a pinch of salt, and all this black pepper. It's stewed up together and taken hot, and it's a nice thing for the gout, I should think!"

There was something so natural and winning in Clara's resigned way of looking at these stores in detail, as Herbert pointed them out,—and something so confiding, loving, and innocent, in her modest manner of yielding herself to Herbert's embracing arm—and something so gentle in her, so much needing protection on Mill Pond Bank, by Chinks's Basin, and the Old Green Copper Rope-Walk, with Old Barley growling in the beam—that I would not have undone the engagement between her and Herbert, for all the money in the pocket-book I had never opened.

I was looking at her with pleasure and admiration, when suddenly the growl swelled into a roar again, and a frightful bumping noise was heard above, as if a giant with a wooden leg were trying to bore it through the ceiling to come at us. Upon this Clara said to Herbert, "Papa wants me, darling!" and ran away.

"There's an unconscionable old shark for you!" said Herbert. "What do you suppose he wants now, Handel?"

"I don't know," said I. "Something to drink?"

"That's it!" cried Herbert, as if I had made a guess of extraordinary merit. "He keeps his grog ready-mixed in a little tub on the table. Wait a moment, and you'll hear Clara lift him up to take some.—There he goes!" Another roar, with a prolonged shake at the end. "Now," said Herbert, as it was succeeded by silence, "he's drinking. Now," said Herbert, as the growl resounded in the beam once more, "he's down again on his back!"

Clara returning soon afterwards, Herbert accompanied me up-stairs to see our charge. As we passed Mr. Barley's door, he was heard hoarsely muttering within, in a strain that rose and fell like wind, the following Refrain; in which I substitute good wishes for something quite the reverse.

"Ahoy! Bless your eyes, here's old Bill Barley. Here's old Bill Barley, bless your eyes. Here's old Bill Barley on the flat of his back, by the Lord. Lying on the flat of his back, like a drifting old dead flounder, here's your old Bill Barley, bless your eyes. Ahoy! Bless you."

In this strain of consolation, Herbert informed me the invisible Barley would commune with himself by the day and night together; often, while it was light, having, at the same

time, one eye at a telescope which was fitted on his bed for the convenience of sweeping the river.

In his two cabin rooms at the top of the house, which were fresh and airy, and in which Mr. Barley was less audible than below, I found Provis comfortably settled. He expressed no alarm, and seemed to feel none that was worth mentioning; but it struck me that he was softened—indefinably, for I could not have said how, and could never afterwards recal how, when I tried; but certainly.

The opportunity that the day's rest had given me for reflection, had resulted in my fully determining to say nothing to him respecting Compeyson. For anything I knew, his animosity towards the man might otherwise lead to his seeking him out and rushing on his own destruction. Therefore, when Herbert and I sat down with him by his fire, I asked him first of all whether he relied on Wemmick's judgment and sources of information?

"Ay, ay, dear boy!" he answered, with a grave nod, "Jaggers's knows."

"Then I have talked with Wemmick," said I, "and have come to tell you what caution he gave me, and what advice."

This I did accurately, with the reservation just mentioned; and I told him how Wemmick had heard, in Newgate prison (whether from officers or prisoners I could not say), that he was under some suspicion, and that my chambers had been watched; how Wemmick had recommended his keeping close for a time, and my keeping away from him; and what Wemmick had said about getting him abroad. I added, that of course, when the time came, I should go with him, or should follow close upon him, as might be safest in Wemmick's judgment. What was to follow that, I did not touch upon; neither indeed was I at all clear or comfortable about it in my own mind, now that I saw him in that softer condition, and in declared peril for my sake. As to altering my way of living, by enlarging my expenses, I put it to him whether in our present unsettled and difficult circumstances, it would not be simply ridiculous, if it were no worse?

He could not deny this, and indeed was very reasonable throughout. His coming back was a venture, he said, and he had always known it to be a venture. He would do nothing to make it a desperate venture, and he had very little fear of his safety with such good help.

Herbert, who had been looking at the fire and pondering, here said that something had come into his thoughts arising out of Wemmick's suggestion, which it might be worth while to pursue. "We are both good watermen, Handel, and could take him down the river ourselves when the right time comes. No boat would then be hired for the purpose, and no boatmen; that would save at least a chance of suspicion, and any chance is worth saving. Never mind the season; don't you think it might be a good thing if you began at once to keep a boat at the Temple stairs, and were in the habit of rowing

up and down the river? You fall into that habit, and then you notices or minds? Do it twenty times or fifty times, and there is nothing special in your doing it the twenty-first or fifty-first."

I liked this scheme, and Provis was quite elated by it. We agreed that it should be carried into execution, and that Provis should never recognise us if we came below Bridge and rowed past Mill Pond Bank. But we further agreed that he should pull down the blind in that part of his window which gave upon the east, whenever he saw us and all was right.

Our conference being now ended, and everything arranged, I rose to go; remarking to Herbert that he and I had better not go home together, and that I would take half an hour's start of him. "I don't like to leave you here," I said to Provis, "though I cannot doubt your being safer here than near me. Good-by!"

"Dear boy," he answered, clasping my hands, "I don't know when we may meet again, and I don't like Good-by. Say Good Night!"

"Good night! Herbert will go regularly between us, and when the time comes you may be certain I shall be ready. Good night, Good night!"

We thought it best that he should stay in his own rooms, and we left him on the landing outside his door, holding a light over the stair-rail to light us down stairs. Looking back at him, I thought of that first night of his return when our positions were reversed, and when I little supposed my heart could ever be as heavy and anxious at parting from him as it was now.

Old Barley was growling and swearing when we repassed his door, with no appearance of having ceased, or of meaning to cease. When we got to the foot of the stairs, I asked Herbert whether he had preserved the name of Provis? He replied, certainly not, and that the lodger was Mr. Campbell. He also explained that the utmost known of Mr. Campbell there, was, that he (Herbert) had Mr. Campbell consigned to him, and felt a strong personal interest in his being well cared for, and living a secluded life. So, when we went into the parlour where Mrs. Whimple and Clara were seated at work, I said nothing of my own interest in Mr. Campbell, but kept it to myself.

When I had taken leave of the pretty gentle dark-eyed girl, and the motherly woman who had not outlived her honest sympathy with a little affair of true love, I felt as if the old Green Copper Rope Walk had grown quite a different place. Old Barley might be as old as the hills, and might swear like a whole field of troopers, but there were redeeming youth and trust and hope enough in Chinks's Basin, to fill it to overflowing. And then I thought of Estella, and of our parting, and went home very sadly.

All things were as quiet in the Temple as ever I had seen them. The windows of the rooms on that side, lately occupied by Provis, were dark and still, and there was no lounge in Garden-court. I walked past the fountain

twice or thrice before I descended the steps that were between me and my rooms, but I was quite alone. Herbert coming to my bedside when he came in—for I went straight to bed, dispirited and fatigued—made the same report. Opening one of the windows after that, he looked out into the moonlight, and told me that the pavement was as solemnly empty as the pavement of any Cathedral at that same hour.

Next day, I set myself to get the boat. It was soon done, and the boat was brought round to the Temple-stairs, and lay where I could reach her within a minute or two. Then, I began to go out, as for training and practice: sometimes alone, sometimes with Herbert. I was often out in cold, rain, and sleet, but nobody took much note of me after I had been out a few times. At first, I kept above Blackfriars Bridge; but, as the hours of the tides changed, I took towards London Bridge. It was Old London Bridge in those days, and at certain states of the tide there was a race and fall of water there which gave it a bad reputation. But I knew well enough how to "shoot" the bridge after seeing it done, and so began to row about among the shipping in the Pool, and down to Erith. The first time I passed Mill Pond Bank, Herbert and I were pulling a pair of oars; and, both in going and returning, we saw the blind towards the east come down. Herbert was rarely there less frequently than three times in a week; and he never brought me a single word of intelligence that was at all alarming. Still, I knew that there was cause for alarm, and I could not get rid of the notion of being watched. Once received, it is a haunting idea; how many undesigning persons I suspected of watching me it would be hard to calculate.

In short, I was always full of fears for the rash man who was in hiding. Herbert had sometimes said to me that he found it pleasant to stand at one of our windows after dark, when the tide was running down, and to think that it was flowing, with everything it bore, towards Clara. But I thought with dread that it was flowing towards Magwitch, and that any black mark on its surface might be his pursuers, going swiftly, silently, and surely, to take him.

SWEETS.

THROUGHOUT the whole of the great class of animals headed by man, from the elephant down to the shrew mouse, there is one sort of tooth—the sweet tooth—common to all. Even the canary-bird understands sugar, while as for the ants and the flies, they will die for it and in it. Whether or not it be distinguishable by the taste, some kind of sugar is known to exist in nearly every kind of food taken by animals, beginning with the mother's milk, which is always sweetened to the particular want of each sort of suckling.

So great is the enjoyment produced by this taste in many animals that, although low in the scale of wit, they soon begin to recognise and

show an affection for any person by whom they often have it indulged, and they find out with surprising accuracy what they must do to get more. It is thus that horses are taught to go through many of the wonderful performances exhibited at amphitheatres. The love of cattle for sweet fodder is most amusing; it is hardly possible to keep them out of a field in which some of the sweeter varieties of Indian corn or Chinese sugar grass is growing, should they have had one taste of its quality, and the use of sweetened food is one of the means by which cattle are induced to eat to the limits of repletion in order to produce that maximum of fat desired by agricultural societies. Of the delight taken by that eminent mammal—man—for sugar, nothing need be said.

The practice of sweetening food is far more ancient than the knowledge of actual sugar. It is almost certain that the Greeks and Romans knew sugar only as honey; and, as this had to be employed for nearly all sweetening of their food, bee-keeping was as great a business then, as sugar-baking is now.

That accounts for the frequent citation by ancient writers of names of places famous for the quantity and fineness of the honey they produced, as Hybla, Hymettus, Canaan, "a land flowing with milk and honey." At a later date cane honey became known to the Romans. Dioscorides, a writer in the first century, mentions that a kind of honey was found on canes which grew in India and Arabia which was called *sugar*, and which, we are informed by Pliny, was only used in medicine, as we use manna, though without the laxative properties of manna. Sugar appears to have been first introduced into Europe at the time of the Crusades, when it was used as a rare kind of sweetmeat; the art of boiling down the juice of the sugar cane not having any commercial importance until the middle of the fifteenth century. But the general domestic use of sugar dates only from the discovery of America, and the subsequent establishment of plantations of sugar canes in the West Indies.

Sugar belongs to a class of substances closely akin to one another, called in chemistry the glucic group. Glucic is only a Greek way of saying sweet. The members of his family are made of carbon, with the addition of oxygen and hydrogen in the proportions to form water. Sugar is charcoal and water in another shape, established by another way of blending the three elements. The names of the principal members of the sweet group in the order of the quantity of water they may be supposed to contain are, vegetable or woody fibre, gum tragacanth, starch, gum-arabic, cane sugar, fruit sugar, grape sugar, milk sugar, and inosite or the sugar of animal muscle. The kinds of sugar mentioned in the foregoing list will all ferment, and are called fermentable or true sugars. There is a class of sugars also characterised by a very sweet taste, which will not ferment, and which seem, moreover, to be somewhat different in constitution. Manna sugar and liquorice sugar are the most

familiar examples. It must also be borne in mind, when considering the properties of all these varieties, that though called by one generic name, and nearly related in constitution, they are in each case perfectly distinct bodies, each with its own properties and its own way of composition.

Though the sweetness of all substances forming the food of man and animals is caused by the presence of one of these sugars, yet we know of other sweet compounds, some of them sweeter than sugar, that are anything but eatable: sugar of lead, for instance, very sweet, though nauseously metallic in its taste; glycerine also is sweet, and so is chloroform; while a solution of chloride of silver in hyposulphite of soda is probably the sweetest compound known; its excessive sweetness when a drop is placed on the tongue being almost intolerable.

Cane sugar, which is the sweetest of all true sugars, is contained in the juices of the sugar cane, in beetroot, in the sap of many kinds of palm and of the sugar maple; in the stalks of Indian corn, the juice of gourds; and from all these sources it is got for man's use as an article of trade, being identically the same substance in each case. It is also contained in some stage of their growth in most fruits, in the stalks of grasses, in the leaves of certain plants, as the red cabbage; in the roots of many others, as the carrot; in the sap of trees, as birch, hazel; and is, in fact, common in the plant world. The way of getting sugar from the above sources is in principle the same in all cases, and is so well known that we need not repeat it here. Cane sugar is nearly pure in the finer varieties of lump sugar, which, like snow, owes its dazzling whiteness to the innumerable refractions and reflexions of the light fallen upon it. Its sweetening power is very great; a property in part due to its great solubility in water, which will take up three times its own weight when cold, and almost any quantity when boiling. When a strong solution of sugar is allowed to congeal slowly it forms the large crystals known as sugar-candy, which, of course, differs from ordinary sugar in nothing but form. When heated to a temperature of three hundred and twenty degrees sugar melts, and on cooling solidifies to the glassy transparent substance known as barley-sugar. This clouds by keeping, because the sugar has been slowly assuming the crystalline form, a change that is the cause of that delicious crust which some of us recollect as encasing acid-drops or other transparent sweetmeat, after a long storage in the schoolroom desk. When a boiling saturated solution of sugar is poured on a cool plate, or in a mould, it solidifies on cooling to an opaque, concrete mass. These two forms of cane sugar are the foundation of all the arts of sweetmeat manufacture. When sugar is carefully heated to a temperature of about four hundred and fifteen degrees it loses water, and is changed into an intensely dark brown fusible matter called caramel, but more commonly known as burnt sugar. This substance is very

soluble in water, and is used extensively to colour wines and sauces, producing all tints from a light amber to an almost black, and having the advantage, when properly prepared, of being free from taste and smell. A solution of sugar will dissolve a large quantity of lime, and such a mixture, when containing but a small amount of lime, or even alkali, will act upon—a purer sugar does not—copper vessels.

The commonest forms of fruit sugar are honey and treacle. In the former it is associated with grape sugar, and in the latter with cane sugar. It is called fruit sugar from being the cause of the sweetness of most of the fruits of temperate climates, those of tropical climates being said to owe their sweetness generally to cane sugar. By some very recent experiments in France, it has been shown that the sweet principle, as it first appears in the fruit, is cane sugar, which is changed wholly or partially into fruit sugar by the process of ripening. Fruit sugar cannot be made to crystallise, and is, therefore, hardly to be met with in a solid form. When a solution of our household sugar is boiled for some time it is partly converted into fruit sugar, which has the property of preventing the crystallisation of a large quantity of the unchanged cane sugar. This accounts for the formation of molasses, there being formed during the long evaporation of the cane juice much fruit sugar, which subsequently drains away. Under the heat of the refining process we, for a like reason, get treacle as a thick uncrystallisable syrup, carrying, of course, much cane sugar with it in solution.

The change from cane into fruit sugar takes place more quickly when there is malic, tartaric, or almost any vegetable acid present; thus in making fruit preserves, the acid of the fruit, by boiling with the sugar, soon changes the whole of it into fruit sugar, so that on subsequent cooling there is no crystallisation as there would be if this change did not occur. Where preserves, jellies, honey, &c., are kept for some time they are apt to undergo the disagreeable change commonly known as candying. This is caused by the gradual conversion of the fruit sugar into grape sugar, the warty crystalline lumps of which, diffused through the mass, give rise to the peculiar change in taste and appearance. The change may generally be observed to have taken place on the surface of jams when the part below is quite unaffected. The crust of sugar that surrounds most dried fruits also comes by reason of the property fruit sugar has of passing, under certain circumstances, into grape sugar.

Grape sugar (so called because it was first got from dried grapes), though it is not used to nearly the same extent as the other two, is perhaps the most interesting, as it is the only one that is directly fermentable. The others must change into grape sugar before they will ferment, and the same change also takes place during digestion in the stomach. Nearly all the substances belonging to the before-mentioned sweet or glucic group can be more or less readily turned into grape sugar. Thus, when starch is boiled for a short time with dilute sul-

phuric acid, it assimilates the elements of water and is changed into grape sugar, the acid taking no part in the change, except giving the impulse to it, for that can be withdrawn unchanged on the completion of the process. Malt also contains a substance called diastase, which possesses to an astonishing degree the property of transforming starch into sugar. Let any one try the experiment of adding a little infusion of malt to a basin of hot and thick arrowroot or gruel, and allowing the mixture to stand for a few minutes in a warm place, it will be found that the previously pudding-like mixture has become quite thin and fluid from the transformation of the starch.

Again, when any form of vegetable fibre, such as rags, sawdust, or tow, has been digested for several hours with strong sulphuric acid, and the mixture, afterwards diluted with water, has been boiled for some time, the old rags will have undergone magical change, and will be sugar. A hundred parts of linen rags will yield one hundred and fifteen parts of sugar, the increase of weight being due to the elements of water absorbed during the change.

In France a great deal of grape sugar is made from starch, and is known as starch sugar. Much of this is used for increasing the strength of beer (at expense of quality), by adding it to the wort before fermentation. It is also said to be largely employed in France for purposes of adulteration.

Though grape sugar has the advantage of being thus easily manufactured, it is at disadvantage, since it has not so great a sweetening power as cane sugar, besides that it does not crystallise so easily, and is therefore more difficult to come at in a marketable form. Starch sugar, in its usual form, appears in large concrete lumps of a light brown colour, and of very slight crystalline texture; it has an agreeable taste, though its sweetening power is less than half that of cane sugar, and it is not so easily dissolved in water. There is need, therefore, that it be produced at a much cheaper rate than at present, if it is ever to be largely consumed for the same purposes as cane sugar.

Milk sugar is, of all the varieties of sugar, the least sweet, and is therefore little used, except for some chemical and medical purposes. It is manufactured in many localities in Switzerland by evaporating, after the curd has been separated, the waste whey to a syrupy state, when the sugar crystallises out. Milk sugar is found in the milk of all animals; human and asses' milk containing six parts in a hundred.

Though cane sugar so closely resembles other members of the glucic group, differing from them only by more or less of water or its elements, yet up to the present time all attempts of chemists to form cane sugar artificially have failed. When future researches shall have solved the problem of the real relation of these bodies to each other, there can be no doubt that some process will be discovered for the chemical production of such sugar as we put into our tea, but shall hardly be able to compete with nature in economy.

It will be seen from the foregoing facts and considerations that the sweetening power of any sample of sugar depends on the quantity of absolutely pure cane sugar it contains. The ordinary brown sugars contain, according to quality (not always price), from eighty-three to ninety-six per cent of pure sugar, the remainder consisting of water, fragments of cane fibre, grape sugar, and a small quantity of a vegetable substance resembling white of egg in nature, and which is the food of disgusting little insects which literally swarm in some samples of sugar, and can frequently be distinguished without difficulty by the naked eye. In some kinds of moist sugar the impurities occur in such quantity as not only to destroy its flavour but to render it unwholesome. The cheaper kinds of lump-sugar are in all cases purer than brown sugars, and lump-sugar, from its form, offers far less opportunity for adulteration, an advantage which belongs also to the soft sugar that is crystalline in its texture, and not so moist as to clot into brown lumps.

Sugar is not only a condiment; it is a most important article of diet, and aid to digestion. Though the use of sugar as an article of food seems mainly to supply the carbon used in breathing, yet it undoubtedly contributes also to the production of fat, for during the severe labour of gathering the sugar crop in the West Indies, in spite of the great exertion and fatigues, it is said that every negro on the plantation, every animal, even the very dogs, will fatten.

The conversion of starch into grape sugar also appears to be the first step in its digestion; and it is probable that the greater difficulty with which cellulose is converted into sugar is the cause of its indigestibility and uselessness as an article of food. Sugar also plays an important part in many processes of the animal system, and appears to be necessary to the production of bile. It has been detected by Lehman and Bernard in the blood of man, and in that of the cat, dog, and ox. Sugar also is supposed to be necessary to the process of incubation, where by its peculiar solvent action on the lime and phosphate of lime of the shell it is thought to assist in the formation of the bones of the chick, and though this idea has not yet been demonstrated, it appears highly probable, from the general occurrence of sugar in the egg. As an instance of the marvellous processes going forward in the human frame, I may mention that in the terrible disease called diabetes all the amylaceous food converted into sugar, instead of being assimilated by the system, as in health, passes away, the sufferer thus deriving no benefit from the food.

Sugar lies under a ban for injuring the teeth. What shall we say of this? The negroes employed on sugar plantations, who eat, perhaps, more sugar than any class of people, have almost proverbially fine white sound teeth, which they retain in old age. But on the other hand, in England, persons employed in the sugar refineries, who are from their occupation obliged constantly

to be tasting sugar, lose their teeth from decay after a few years. A strong solution of pure sugar appears to have no action on teeth after extraction, even after many months, and even when already decayed the action on them is scarcely perceptible. But sugar, in combination with a small amount of lime, or alkali, has the property of dissolving phosphate of lime, a salt which is contained in large quantities by the bones and teeth; a circumstance which may explain in some measure the contradictory nature of the facts. Thus the inferior varieties of sugar and treacle, which always contain lime derived from the process of manufacture, and many kinds of confectionary into which lime enters as an ingredient, would be expected to have an injurious action on the teeth, especially if there should be a break anywhere in the outer coating of enamel. On the other hand, *fresh* honey and fruits, which contain a large per-centage of sugar, but in which it is not likely to occur with lime in combination, are so far above suspicion, that some fruits—as strawberries, plums, &c.—which contain much sugar, have even been recommended as aids to the securing of good teeth.

CHINESE SLAVES ADRIFT.

A BIT of muddy sand, a bluff point covered with trees of a real English green, a handsome pagoda, and at the foot of it a single house with a yard, inscribed by hands of departed Englishmen as the bowling-green of her Majesty's brig Acorn, are the notable features of the Pagoda anchorage, twelve miles below Foo-chow-foo, in the river Min. Round the bluff is a creek, with paddy-fields on one side, and on the other a muddy cliff. On the cliff is the establishment of Messrs. Yeh-sin (pronounced by the sailors Yellow Sam), general dealers in all things that ships may want. Hither I had come in the Queen, coasting steamer carrying the mail, which rode at anchor under the pagoda, in company with some fast-sailing American and Aberdeen tea-clippers, and two or three opium receiving-ships. Climbing the hill, I found on its top an American surgeon, serving as the bar-keeper, and residing there with no comrades but the Chinamen, or, as he called them, the long-tailed Ching-a-ring-tingus. The place, he said, was right enough as long as there were no typhoons. He'd been in one, and if there came another, he should not stop for a third. "I just saved my books and ran up the hill, when up came my house after me, and had nearly caught me, when it all went to smash just here. You belong to the Queen?"

"Yes; we start for Amoy to-morrow."

"And the mail closes to-night. I'm off."

And off he went, as if he had another house tumbling up at his heels.

Next day we were to start for our run down the coast. When the steam was blowing off and the anchor away, boats sped to us in crowds. Small sampans and large row-boats clustered alongside, holding on to the last

minute, as representatives of the different large firms whose flags they carried, and whose letters with the very latest commercial news were to be carried by the Queen. Each great house, scorning the small formality of the post-office, has its own bags of mails, and often gets its news before other men's letters are sorted. These large firms look with no friendly eye on the equal blessings of a regular mail. When information as to the opium market, the one great piece of news in China, which everybody asks about and which everybody knows about, and which is what everybody means by "information,"—when "information" was only got by irregular means along the coast, and very often only by the opium clippers of the great houses, a very handsome trade in buying and selling was accomplished even by the mildest man of business. A regular mail communication upsets all that little arrangement, unless the great houses can command a rate of speed in their own ships that will outstrip the mail. Otherwise, all the merchants have an equal chance, and huge fortunes are not so easily made in China now-days as of yore.

At length we were off. The river Min runs deep and rapid, between fertile fields and wooded hills, to the bar at its mouth, shallow and formidable, extending a long distance and right in the way of the entrance. The difficulty of following the channel across the bar, is aggravated by its being some distance from the land forming the entrance of the river, and consequently by the "marks," when it is at all thick weather, being invisible. Here we steamed by a poor bilged vessel, once a noble clipper, that they were trying to get up to the anchorage under jury canvas. She was the famous American clipper Flying Fish, that once sailed a race round the world with two other vessels (as Maury tells us), and now, leaving Foo-chow-foo with a splendid full freight of tea, had ended her career as a clipper at this miserable bar. She had come down the river safely, and was working out of the narrow channel, when she did what she had never done before—"missed stays;" there was no room to "wear," so to let go the anchor was her only chance. Here again, a strange accident occurred, as fatal as unexpected. The "shank painter," a chain securing the "flukes" of the anchor to the rail, jammed its end in rendering, as the weight of the anchor made it fly round the timber heads. So there the anchor hung; chain being used instead of rope, no one could cut it; and the good ship drifting round took the ground on the bar and drove ashore.

The little Queen, being a steamer, was not subject to a casualty of this kind, and the bright sunshine gleaming on the White Dogs Islands on our left, and the high land about Hai-tan on our right, led us to hope, as we rapidly cleared the dangers of the bar, for a quick and easy run. With a fine fair breeze, as we had now, the open sea route is preferred to the in-shore route; and, crowding every stitch of sail on the ship, we hurried on.

One of the peculiarities of navigation on the

coast of China, particularly at certain seasons of the year, is rapid change of weather. The sea is as sudden in its changes as the winds: probably from the strong currents prevalent: and it does not take long to transform the short chopping sea incidental to a "fresh breeze," into deep wall-like waves, quick running and merciless. So, the better the weather, the more careful the good sailor, and the more it behoves him to pay attention to that safe and sure guide—his barometer. In all well-regulated ships the barometer is noted at sea or in harbour at the end of every four hours; but it sometimes happens that in the confusion and bustle of a last day in port—cargo, mails, baggage, stores, and sundries, all coming in at once—the careful reading of the barometer may have been overlooked.

Hardly were we well clear of the entrance of the Min, our ropes coiled down, and the crew piped to dinner, when we became aware on board our little ship that the barometer was very low indeed. It was of little use to inquire, now, when it had begun to go down; low down there it was; and notwithstanding the bright blue sky overhead, and the merrily dancing sea, we knew well what we had to look for. The distance between Foo-chow-foo and Hong-kong is not much more than four hundred miles, and Amoy is not quite half way between them. Our object would be to gain Amoy before the typhoon—if there were one coming—broke in its violence, for there the harbour is quite sheltered, and we could wait quietly the blowing over of the storm. It was not far to go for a steamer with a fair wind; but if the storm came on, as it probably would, within twelve hours, we should have a race for it. Of course we could fall back on the alternative, in any weather, of bringing our little ship to the wind, and "lying to" until the gale was over. Our first chance was to run for it; and we had not run long, before, as the evening drew in, the prediction of the barometer was verified. The bright blue sky disappeared. Black lurid clouds massed up to the eastward, and the veering and strengthening breeze moaned and whistled through our rigging. The sea, not bright and sparkling, but black and sullen, chased our stern no longer as in sport, but with a rushing subdued roar, that boded mischief. The fishing-boats, of which there is generally a large fleet upon all parts of the coast, were all standing in for the land, towards the various villages. We ourselves were making every preparation for what sailors call a "dirty night," when our attention was called by the look-out man to a white patch on the horizon. At first we took it for some small craft, but the sail was too white to belong to one of the fishing-boats, as they all use matting for sail-cloth. The shape of it, too, was unlike any of the strangely-shaped "rigs" that the Chinese coast boats have. It looked like the topsail of a ship close-reefed; but how it could be in that position, just showing above the water, was a mystery.

The order was given on board to "keep away a point or two, to steer for the sail,"

and we were soon rapidly nearing it. Every available spy-glass was directed towards this strange sail. It appeared, as we all watched it, to loll up and down, as it were, with the jerk of the sea, according to no regular motion of a ship or boat. Suddenly it showed more clearly on the very top of a high wave.

"It is a ship capsized!" cried several at once; and we were soon near enough to make out distinctly that it was.

We had no time to spare in that state of the weather, for troubling ourselves much about anybody's business but our own: yet here there might be human lives at stake.

"Can you see any one on board? Is there any flag waving?"

"Yes, sir, I think I can make out a bit of colour in the rigging," replied the officer of the watch, who was intently studying the wreck through his glass.

Every moment, at the rate we were going, enabled us to make out the vessel better and better, and we now discovered her to be a large barque: all her masts standing, and a main-topsail set. The fore-topsail had evidently split, the rags blowing about in the breeze. She was right over on one side, the keel showing between every sea that passed her, and the water being nearly up to her hatchways on deck. In the mizen-rigging, upside-down, was a flag—the Peruvian ensign we at last made it out to be—and at the same time we discovered a black object standing on the upper part of the poop.

"It is a man!"

It was a man. So, the order was passed to "stand by below," ready to stop the engines. Not only one figure but three or four figures were now observed on the wreck, and passing under her stern, we saw that her name was the *Bon Aventuro*. In the next minute the *Queen* was rounded to, and a boat prepared for lowering.

In the mean time the wind had freshened greatly, and there was what Jack would call a "capful" for anybody. There was such a sea running as to render it unwise to risk any but a life-boat. For her, however, we soon had a crew, and in five minutes we were close to the capsized ship. With great difficulty, and after considerable manœuvring, we took advantage of a calm interval and got alongside the keel. We then had to jump quickly from the boat on to the green slippery copper of the vessel's bottom, and crawl up the side to the bulwarks, making our boat shove off directly and lay upon her oars. Clustered about the after-part of the vessel, hanging on to the rigging, and on anything by which they could support themselves, were a group of Chinamen, who welcomed us with the most frantic gesticulations of delight. They would let go whatever they were holding themselves fast by, to make "salaams" down to their very feet: greatly endangering their safety, considering the uncomfortable slope of the ship's deck. A hasty glance below, the hatchways being open, and the water rushing about in the

hold, indicated the nature of the accident that had befallen the unlucky craft, misnamed *Bon Aventuro*. A great mass of sand was visible as the water washed about. Clearly, she had been struck by a squall; the ballast had shifted; and over she had gone. A further inspection, but a very rapid one—for the rising wind and sea warned us that we had no time to spare—showed us that all her boats were gone. As we afterwards learnt, they had afforded means of escape to the captain, crew, and all the other people save those whom we found. There was no time then for asking questions. Passing three or four lines along the ship's bottom to hold on by, and a longer one to our life-boat by the keel, we sent the Chinamen along as fast as we could: the boat being obliged to lay off, and the greatest watchfulness and care being exercised in handling her. She would hold but half the number of people we found on the wreck, so she was at once despatched with her cargo to the steamer, and while she was gone I jumped down into the cabin to look round. The dining-table and seats were in a confused mass to leeward; some arms, a broken water-keg or "breaker," a part of a compass, half a bag of bread, and a dozen other things, were lying about, and had evidently in the confusion of abandoning the ship been hastily taken up and thrown aside again. From the deck, hung the tell-tale compass, still indicating (having been jammed in its position when the ship heeled over) the course the ship had been steering when she capsized. Suddenly a faint noise as of a man in pain struck on my ear. Why had I not remembered that there might be some one alive down below, who had been hurt, or was sick perhaps, and had been unable to shift for himself when the rest escaped? I made towards the noise, which issued from one of the after state-rooms; walking on the side panels and over the doors of the lower cabins instead of upon the deck. The doors were all open, and in the second cabin from aft, I heard the groaning. "Here, here! Help!" said a faint voice as I reached the place.

In one of the bed-places was stretched the emaciated figure of a man, scantily covered with a great-coat, and a patched quilt on the bed.

"Good Heaven! I had no idea there was any one below," I exclaimed.

"It's too late—I'm dying!" said the poor fellow, gasping his words out with great difficulty, and falling back from the half-raised position that in the excitement of the moment he had had power to take.

I thought the poor fellow was gone. Of all ghastly objects ever beheld, this was one of the most dreadful. Neglect had aggravated the terrible effects of the disease from which he was suffering, and the poor yellow skeleton with its matted hair and grimy skin was horrible to look upon.

I hunted in the main cabin until I found in a corner a half-empty spirit bottle; a little drink from this revived him wonderfully.

"Thanks—thanks!" he said. "Hour after

hour of the last two days and nights has been to me like months and months. Every wash of the sea would sink the ship I thought, or the Chinese pirate boats would board us."

"Tell me when and how did this occur."

"We were bound from Whampoa to the West Indies, with emigration coolies on board; we were in ballast, and going to call on the coast at Swatow to load some freight; when a squall struck the ship in the night, and before any one below was aware, she was what you see her. I was the second mate, and the only Englishman on board. Directly the accident occurred, the captain and all hands took to the boats. It was every man for himself, you may be sure. Many were drowned. I have been down with fever and dysentery. I'm not long for this world; and you'd better go and leave me here."

"Nonsense, my friend!"

A confusion and noise on deck proclaimed the return of the life-boat, and she was rapidly loaded with eager and grateful Chinamen. The next task was to convey the sick man to the boat: which was by no means an easy one under the circumstances. At last, by contriving a stretcher from part of the cabin table, and using the greatest care and caution, we passed him into the life-boat, and left the *Bon Aventura* to go down to the fishes with her colours flying.

In five minutes we were alongside the *Queen*, the boat was hooked on and run up, and the ship was going ahead full speed. The rescued Chinamen stood up in a row as soon as they were on board, and prostrated themselves, with their heads to the deck, to show their gratitude. They had reason to be doubly thankful. Not only had we rescued them from death, but the accident to their ship had rescued them from slavery.

The weather, while this was a doing, had been getting decidedly worse; had it been finer, we might have tried to take the capsized ship in tow; and if we had been able to get her into a port, the salvage money would have been worth having. Like many other good actions in the world, however, ours was its own reward, and we continued our course for Amoy: making every preparation for the typhoon, which was evidently coming, and trusting to our speed to arrive in port before the storm should break in its full violence. Night came on, dark and thick, and the wind and sea roared at us; but the direction of the wind was still in our favour, and, with reefed sails, the *Queen* ran like a race-horse to her winning-post. We mustered the rescued Chinamen on deck, and sending for one of our boatmen, by name Akow, to interpret, found that most of them had been kidnapped at Chang-chow (or Whampoa) and forcibly put on board the *Bon Aventura*; that they were victims, in fact, of a regular slave-trade, carried on, not only under Peruvian colours, but by other nations that ought to know better.

"Well, Akow, what does this one say?—what's his name?" said we, after examining several who had pretty nearly the same story to tell. He belonged, we learnt, to Canton, his name Pang-a-shing. He had been induced to accompany a pretended friend, who said he could

procure him six dollars a month, if he would enlist as a "brave" for the Western River. Under this pretence, he was taken in a boat to Chang-chow, where his companion said he wanted him to go as a coolie to Taluson (Spain). Refused, but was eventually forced, by a severe beating, to go on board a foreign vessel, but under what flag he did not know.

Another, called Ling-a-shun, lived outside the West Gate, Canton. Having nothing particular to do one day, he was buying some refreshment in the street, when two men, who were strangers to him, came up. One of them had a bundle, and engaged him for two hundred cash to carry it to the commissariat wharf. He did so, was induced to go on board ship for his money, and was thence taken to a floating dépôt at Whampoa, where he was maltreated until he would consent to go abroad, and was accordingly sent with the rest.

Another, Leong-a-tsen by name, a hawker by trade, went to Whampoa, induced by an apparent friend, to set up in business there; was taken on board a coolie broker's boat, tied by the tail and thumbs, and beaten till he consented to go abroad as a coolie.

Chin-yun-ting said he was an agricultural labourer. Lived alone, in a little hovel, which was entered in the night by four men, who carried him off.

Tseang-a-yen, native of Ying-tih, by trade a smith, was told there was some iron to be sold cheap at Ting-kuan: set out for that place in a boat, but, passing Whampoa, was attacked by kidnappers, and compelled to consent to go abroad as a coolie in a foreign ship.

In some cases it appeared that women were employed as agents in this detestable traffic.

Ma-a-kong (one of the coolies) said he lived outside the little South Gate, Canton; was engaged as a servant by a woman, a neighbour of his, who took him in a boat to Whampoa, where he was put on board a broker's boat, beaten, and taken to a foreign ship.

Chin-a-kwang, Chin-yu-moo, Kwan-a-fut, and Lo-a-kang, described the way they were all kidnapped as follows:

A woman, with a child packed on her back, passed them; she designedly caused the child's bonnet to drop from its head; one of them picked it up and brought it to the woman. She expressed her sincere thanks, and offered the men some cakes (which must have been drugged) for their civility. They ate the cakes, and shortly afterwards became so stupefied as to be obliged to sit down by the roadside. Two other men came up, and inquired what was the matter. The invalids incoherently requested to be carried to their homes, instead of which they were carried on board ship. Six men had been intoxicated and kidnapped, by means of these narcotic cakes. The rest of the coolies had each some equally abominable story to relate, before we dismissed them to the "between decks," to be made as comfortable as they could. Then, after seeing to the poor second mate, of whose recovery, however, very little hopes were en-

tertained, we turned all our attention to the weather and our ship.

The typhoon appeared to be working up in a direction at right angles to our course, and our object was to pass the track the centre of the storm would take, before it arrived at that point. The laws of storms are now so clearly defined, that one who runs may read, and we knew by them that "eight points from the direction of the wind would give us the bearing of the centre." Consequently, if the wind drew round so far as to be right abeam, the centre of the circular storm, or typhoon, would be right ahead of our course. As it was, the wind was aft, though not steady, and, consequently, the centre of the storm was abeam of us. Our plan was, therefore, to run for it, and get ahead of the centre before it passed our course, or else to turn back altogether at once and let it go by. As I said before, we had decided upon running. It was all hands upon deck during the whole of that night as we flew before the gale. The typhoon had not yet broken on us in its full force, but the sea had risen and towered over our stern in immense waves. We still kept sail on the ship, and were making, by our calculation, twelve or thirteen knots an hour. At daylight we hoped to be near our port, and anxiously did we consult the barometer, and watch the veering wind through every hour of that night. The first grey glimmer of day was breaking, when there was a glad shout.

"An island on the starboard bow."

It was Chapel Island. We knew its peculiar shape in a moment; we were running past the entrance to Amoy as hard as we could go; and if we had not seen the island, we should have had to retrace our course. How joyfully did we haul our ship up to the wind, though everything cracked again, and the sea broke over our decks, making us catch our breaths at the cold sousing!

The two small islands forming the entrance of the inlet or arm of the sea in which Amoy lies were visible ahead, the sea furiously breaking over and over them. A steady hand at the wheel, a good look-out ahead, and, with the huge sea tearing up on the rocks within a few yards of us on either side, we ran rapidly through the narrow channel, and, in another minute, were in smooth water. What became of the kidnapped Chinese I could not make out.

THE OLD STATUE.

I.

In the market-place of Ypres, three hundred years ago,
A crumbling statue, old and rent by many a lightning blow,
Stood—sad and stern, and grim and blank, upon its mossy base,
The woes of many centuries were frozen in its face.

It was a Cæsar some men said, and some said Charlemagne,
Yet no one knew when he it aped, began or ceased to reign,
Nor who it was, or what it was, could any rightly say,
For the date upon its pedestal was fretted quite away.

When blue and ghastly moonshine fell, severing the shadows dark,
And stars above were shining out with many a diamond spark,
It used to cast its giant shade across the market square,
And through the darkness and the shine it fixed its stony stare.

'Twas said that where its shadow fell, on a certain day and year,
An hour at least past midnight, when the moon was up and clear,
Near to that statue's mouldy base, deep hid beneath the ground,
A treasure vast of royal wealth, was certain to be found.

Slow round, as round a dial-plate, its sharp dark shadow passed,
On fountain and cathedral roof by turns eclipse it cast;
Before it fled the pale blue light, chased as man's life by Death,
And deep you heard the great clock tick, like a sleeping giant's breath.

II.

In that same market-place there lived an alchemist of fame,
A lean and yellow dark-eyed man, Hans Memling was his name,
In scarlet hood and blood-red robe, in crimson vest and gown,
For twenty years, the moonlight through, he'd sat and watched the town.

Like one flame lit he used to peer between the mullions there,
As yonder stars shot blessed light through the clear midnight air;
When chess-board-chequered, black and white, part silver and part jet,
The city lay in light and shade, barred with the moonbeams' net.

When gable-ends and pinnacles, and twisted chimney-stalks,
Rose thick around the market square, and its old cloistered walks,
When gurgoyles on the minster tower made faces at the moon,
And convent gardens were as bright as if it had been noon,—

Memling—the miser alchemist—then left his crimson vials,
His Arab books, his bottled toads, his sulphurous fiery trials,
His red-hot crucibles and dyes that turned from white to blue,
His silver trees that starry rose the crystal vases through.

His room was piled with ponderous tomes, thick-ribbed and silver-clasped,
The letters twined with crimson flowers, the covers golden-hasped,
With dripping stills and furnaces, whose doors were smouldered black,
With maps of stars and charts of seas lined with untraversed track.

In dusty corners of his room, black spiders mischief knit,
A skeleton, bound hand and foot, did ever by him sit,
Pale corpses, prisoned in glass, stood round his chamber barred,
Two mummies at his blistered door kept ever watch and ward.

The "Red man" he had long since bound—the
"Dragon" he had chased,
No spell of Arab alchemist but he had long since traced,
They said he only stirred the lead and straight it turned to gold,
And so his wickedness and wealth increased a hundred-fold.

Slow round, as round a dial plate, the statue's shadow passed,
On fountain and cathedral roof by turns eclipse it cast,
Before it fled the pale blue light, chased as man's life by Death,
Deep, low you heard the great clock tick, like a sleeping giant's breath.

III.

The moonbeams in cascades of light, poured from the poplar's crown,
Rippling in silvery lustre the leafy columns down,
They roofed the town-hall fair and bright with bonny silver slates,
They even turned to argent pure the bars of the prison grates.

The maiden slumbering in her bed awoke that blessed night,
And thought her angel sisters three had come all veiled in light;
The wild-beast felon in his cell started and thought it day,
Cursing the torturer who, he dreamt, had chid him for delay.

The angel host of King and Saint, o'er the Minster's western door,
Shone radiant in the blessed light—so radiant ne'er before,
As now began the airy chimes in the cathedral tower,
To chant, as with a lingering grief, the dirges of the hour.

That day at sunset there had come a voice unto this man,
And said as plain as Devil-voice or friendly spirit can,
"Go, Memling, dig beneath the base of the statue in the square,
The *Secret of all Secrets*'s hid beneath the earth-heaps there."

He shook his fist at stars and moon, then shut his furnace up,
First draining off a magic draught from an Egyptian cup,
For he dreamt he saw his room piled full of solid bars of gold,
Great bags of jewels, diamond-blocks, spoil of the kings of old.

The fitting hour was just at hand, the alchemist arose,
Upon the eaves the rain-drop tears in ice-jags shining froze,
His starry lantern duly lit, with cold he crept and shook,
As with his pickaxe and his spade, his stealthy way he took.

The shadow marked the fitting place, King Saturn ruled the hour,
The Devil floating o'er his slave, smiled at his puny power;
Hans Memling plied his crowbar fast—the *thirteenth* blow he gave,
The ponderous statue fell and crushed the brains out of the knave.

Then clear and still the moonshine pure upon the lone square lay,
No shadow left to sully it, it spread as bright as day;
At dawn they found Hans Memling, crushed, dead-cold beneath the stone,
But what he saw, and what he found, has never yet been known.

CHILDREN OF ALL WORK.

LAUGHTER of innocent children, gay, inconsequential talk that they fetch out of the lips of wisdom with their prattle, the romp at home, the run in the fresh air, the prayer, at the mother's lap, and the soft sleep from twilight until sunrise, are, when they are blotted out, loss to the old as much as to the young. Sense of the joy and purity of life comes from the children as they dance and sing in the midst of the toiling crowd. But let the millions who toil in England pass before us in one great procession, and we shall find sad companies of eager, undergrown, unwholesome men, walking with none but pale and weak-eyed women, and with none but bruised and weary little children, stunted of growth, some even wearing spectacles, all silent as the grave. These parents and children, ignorant alike, accept their lot. The children are but what the parents were, and what the parents are the children are to be. So it was twenty years ago, and so it is now, where the law has not interfered for protection of the little child, wherever its forced labour can be made, and has by long usage been made, a means of gain to others.

For the education and for some safeguard against the overwork of children in many factories the law has taken thought. Branches of industry that were to be ruined by such thoughtfulness are now more prosperous than ever, and nobody complains that a penny has been lost by the removal of a ruinous strain on the powers of the young. Still, however, in some branches of industry instances occur in which children begin to work as early as three and four years of age; not unfrequently at five, and between five and six; while, in general, regular employment begins between seven and eight. The work is in trades at which young children are capable of working, and in which

there is no law hindering their cruel enslavement to parents or taskmasters who profit by the destruction for them of all that is life to a child, and all that is in a child the source of hope for womanhood and manhood. It is well if they are required to work only for ten hours a day; commonly the hours are eleven or twelve, in many instances their close labour is enforced for fifteen, sixteen, or even eighteen hours a day. Exchange of a word or smile is grudged them as so much taken from attention to the daily, weary task, and as the hours run on and the little frames fail with exhaustion, the last gasps of possible labour are extorted from them by help of the cane.

Young children—some of them infants—were employed in some of the details of lace-making at Nottingham and elsewhere, when the commission of inquiry into the manner of employing children in unregulated businesses made its report eighteen years ago. There has been no subsequent inquiry, but neither has there been any subsequent improvement. A pamphlet on the lace trade and Factory Act, written with special knowledge but a year ago, says, what we know must be true, that "the abuses complained of in 1842 are in full bloom in the present day;" that the "system of labour in the lace trade, found by Mr. Grainger in 1842, is practised with increased vigour and extortion at the present day;" that, in truth, matters are worse instead of better. There are five times as many steam-machines; the little children are worked as of old; but, under the unrelenting persistence of steam-power, work is really more severe than when done by hand. And it is to be observed that most of these large steam factories "are nothing but warrens of separate workshops. Let off room by room to petty individual manufacturers, their only advantage is to concentrate in one spot the vice and misery which, under the old system, were scattered over a wide space. The hands employed are, in all respects of age and sex, identical with those found to be employed in 1841. At this very day, women, with girls and boys of tender age, are still toil-worn to death in the twist lace factories, as 'winders,' 'doubblers,' 'threaders,' and 'jackers-off.' And although in warp lace factories children of such tender years are not so worked, yet boys from eleven years of age are employed there watching machines in charge of men, and working the same hours, whether ten or twenty, in the day." These children are untaught, except sometimes at Sunday-school to which they go, when they require fresh air and rest, with jaded minds and bodies to a seventh day of work, and where they sit, "boys and girls of ten, eleven, and thirteen years of age, languishing in pale decay, far back upon the lowest forms, and vainly trying to fix their attention on the books before them. Poor children! they have no power of attention. Their wasted frames are exhausted beyond the limits of nature. Strength—full, buoyant, youthful strength—they have never known. Energies they have none. Patience alone they possess."

Print-works were, like lace-works and many other branches of industry by which children suffer, excluded from the operation of the Factory Act. It was argued that although the calico printers worked children longer and harder than the spinners, yet it would be ruinous to interfere with them, because while the simple fabric produced by the spinner or weaver is always saleable, and can be produced by steady labour all the year round, changes of fashion affect calico printing. The pattern that yields large profits in one month may be hardly saleable in the next, and saleable only at a loss the next after that. The printer is, therefore, sometimes idle for weeks, sometimes exposed to double strain of labour, and as the child is as necessary a part of the machinery of production as a linch-pin, it must bear as it can the pressure that falls equally upon all.

Children were found by the Children's Employment Commission entering the print-works as teerers, some between four and five years old, some between five and six, and many between six and seven. The teerer must stand by the block-printer with a sieve full of colour ready to be supplied to the block, before each stamp of the block upon the cloth. The teerer is often the block-printer's own child, and the hours of work said to be twelve, are taken not uniformly, but by a strain of overtime at the end of the week, to make up for the loss by the man's habit of idling and drinking on Monday and Tuesday. Of children examined, one, when only five years old, worked between thirteen and fourteen hours a day. A girl, not six, worked regularly twelve hours; another girl, six and a half, sometimes fourteen hours; another between six and seven, generally thirteen hours, and sometimes all night. One printer told how he had worked from Wednesday evening till Saturday morning, "and the boy with me all the time; I was knocked up, and the boy almost insensible." We read of a child of seven, worked by its father "from six in the morning till eleven at night for a week together at an average." Because children of tender years could earn money for their parents by employment of this sort, the day-schools were emptied, and childhood sent into slavery was left to grow up to the manhood and womanhood that has charge in those districts of the childhood of the present day.

The consequence of this report was a particular law passed in 'forty-five, to regulate the labour of children, young persons, and women employed in print-works. Children under eight were not to be employed at all; children under thirteen and females were not to be employed during the night-hours—between ten in the evening and six in the morning. A girl of eight may, therefore, still be worked from six in the morning until ten at night; a boy of thirteen may still be worked from Wednesday evening until Saturday morning. The same law included an education clause, requiring one hundred and fifty hours in the half-year of certified school attendance for an employed child under the age of thirteen. But there is nothing to

assure the competence of the schoolmaster who certifies, and the tale of hours is made up at odd times, in such a manner that very little benefit would come to the children even if there were some care to ensure their being fairly taught. As to this matter, a joint report of all the factory inspectors urged in vain the following opinion a few years ago: "There are some instances of the owners of print-works having provided good schools, and in such cases, and when the attendance of the children is carefully looked after, and they are not stinted to the legal minimum of attendance, such schooling may do good; but as regards the great majority of these children, this nominal school attendance has been found in practice a mischievous delusion, for it is a semblance of education without any reality. The children get no good; their attendance at school is at uncertain intervals, and the records of such very irregular attendance, required by the law to be made out by the teachers, can be very little relied upon. An amendment of this part of the Print-works Act is much wanted. There is nothing in the employment of the children in these works to prevent their labour being restricted, as in the factories, to half a day, with a regular attendance at school of three hours a day for five days in every week; so that the day's work might be done by two sets of children."

But even the partial regulation for protection of young children against undue extortion of labour in print-works does not extend to the lace trade, and to many other trades. These children become workers at any age between four and eight, up with the sun and never in bed before ten, bred with no sense of the love to parents that comes of the right use of a parent's influence and power, denied all recreation, even the natural stir of their limbs as they go through their long monotony of toil, want all that belongs to childhood. A lace-runner, who had worked at the trade for twenty-one years, and had the weak sight, the pains and the debility that come of a calling so pursued, said that after five or six years of the work, eyesight was commonly much injured. "Girls," she said, "begin about six or seven years, some as early as five or six; the hours depend greatly on the mistress; some work from about eight in the morning to ten at night; these are the common hours in Nottingham. The mistresses who employ children often work them very hard; has known children kept at it from six in the morning until ten at night, sometimes not going out of the room, but eating their meals as they sat at work. A man who employs many girls in Cheovil-street, used to sit in the room with his cane, and not allow any one to speak or look off if he could help. After sitting some time at lace-work, the fingers get stiff, and in cold weather are benumbed for want of circulation; this would cause the work to go on slowly, and then the children were beaten; has known children to drop and faint at their work; many go off in consumption." Another woman, who had been such a girl, and growing to be an employer, had

under her children who began as early as five, but usually at seven or eight, said that "the children got very tired and sleepy towards the evening, and frequently complained that they could scarcely see. Never corrected them herself, finding that a little threatening was sufficient. The children occasionally became short-sighted; sometimes, especially towards night, they required spectacles." We quote only a witness or two from a strong body of witnesses bearing like testimony. Here is one, for example, "a married woman, unable, of course, to read and write, who had been a lace-runner ever since she was 'a little bit of a thing that could stand on two bricks to reach the frame,' works as a woman, generally from five in the morning until nine or ten at night; 'can't sit any longer, because she is a poor creature now.' Earns in this way, with hard work, half-a-crown a week. Her sight has suffered a great deal; this happens generally to runners; she cannot see what o'clock it is across her room; her eyes are getting worse. Almost all the children of the poor people in the town are employed in drawing, running, purling, &c. &c.; the common age to begin is six." That woman's earnings are below the average, of which excess is represented by nymph Sabrina, who had been a lace-runner since six years old, and being very quick at her work, earned ninepence a day, or three-farthings an hour. "Many," she said, "cannot earn more than a halfpenny an hour."

A woman who was employing about forty hands as cheveners, each a woman having two or four, or ten or twenty children under her, estimated the worth of a child's labour at about eighteenpence a week. She said, "Chevening causes short-sightedness; it also makes the eyes weak. Children when they begin are sometimes, but very rarely, obliged to use spectacles. They are generally very delicate in health, and often sick and ill. They are not allowed to talk at work. Finds that the children become very much tired towards the evening; they are partly asleep for hours before they leave off. The younger they are the more tired they become. To keep them to their work has heard that mistresses are obliged to give a cuff to one and the cane to another. Does not think it would be possible to get their children to work twelve or fourteen hours a day without the cane. These children have no time to go to school in the week days; they have no time to get exercise or recreation; they go from bed to work, and from work to bed. Should think they would be stupefied on Sunday, and not likely to learn much at a school."

In one house the almost incredible fact was elicited, that the mother, wife of a joiner earning twenty-three shillings a week, and herself earning, when work was not slack, a shilling a day, had four little girls, of the ages of eight, six, four, and two, of which the three elder had all been employed as lace-workers, and the baby of two had already "tried and drawn a few threads out." Of the three elder, the first had begun to work at three years old, the second at

about the same age, the third, who had been a quick little creature, when she was *not quite two years old!*

Here the father of the four little children was in regular work, earning sixty pounds a year, the mother's earnings were at any rate ten pounds, and these mechanics, with more than the income upon which some curates support families, were thus denying health and joy, all use of the faculties, even a stretching of the limbs, to their sickly babies between two and eight years old, for the sake of the ten pounds a year more that could be drained out of their very blood by working them incessantly for twelve and sixteen hours a day.

"We look," says Mr. Senior, whose new book on Popular Education furnishes all the facts to which we are now calling attention—"We look with shame and indignation at the pictures of American slavery; but I firmly believe that the children on the worst managed plantations are less overworked, less tortured, better fed, and quite as well instructed as the unhappy infants whose early and long-continued labour occasions the fabulous cheapness of our hardware and our lace, and whose wages feed the intemperance of their parents."

Only a year ago, in the district of Willenhall, a chief bailiff, having occasion to go to his work before four in the morning, met a little girl not eight years old in the street, crying bitterly because she was shut out of the "pot bank." He said, "It is not nearly time" (six o'clock) "yet." But she answered, "I ought to have been there at three, but I slept too long. I was not home till ten last night."

The correspondent of a school inspector who tells this, adds, writing on a spring day last year, "I was at the infirmary this afternoon, to see some of our people, and asked the house-surgeon if he admitted many cases of disease arising from the sufferers being sent too early to work. And he said, 'Oh! constantly, we always expect such cases; there are two in the house now, one a lad of ten with a diseased spine. The children lose all stamina, and carrying a weight of clay on the head injures the spine. There are many cases of emaciation and distortion—distortion more commonly.' And then he added, 'A lad of sixteen came to me yesterday—I thought he was eight or nine.'"

Thousands of young children, from seven years old, work in South Staffordshire about the forge in the nailmaker's hovel all the long day long. And no material good comes really to any one of all this grinding of young life away. The goose that lays the golden eggs is killed and sold for drink. A long life of intelligent and healthy labour is lost to the country for the gain of weary work extorted from a weakly child.

About Wolverhampton, Willenhall, and elsewhere, there is also a custom of apprenticeship most painful in its working. A child of tender years is apprenticed by the parent, who receives the wages earned under the contract, and the apprenticeship, whenever it may begin, lasts till the age of twenty-one. It is enforced by the

magistrates against the child whenever he resists a contract by which he is bound, though his assent to it was never asked. The apprentice, so bound, is his master's chattel, and while under age is inherited, in case of his master's death, by his master's heirs. Such an apprentice has been sold by one man to another for ten shillings. He is not seldom let out by a penniless owner, who receives his hire and pockets the excess over the contract money due to the parent. He is punished by blows and "clemming," or starvation. "I will clem your guts to fiddle-strings," is one of the forms of threat from master to apprentice. "The parents," says Mr. Horner, writing of Wolverhampton, "count the money; the employers estimate the work; the child must do it." Is it too much to ask that no child be apprenticed while it is under nine years old, or for more than eight years, and that it be bound by no contract not made for its own benefit? That a parent shall not sell or pawn his child's labour for means of buying drink? A pauper child cannot be beaten in hot blood or by any but one of two constituted authorities, and then it must be by one, if possible, always in the presence of the other. An apprentice of the sort to which we here refer is absolutely in his master's gripe. For example: A witness before the Children's Employment Commission, telling of a state of things that has never yet been amended, said that he "worked as a journeyman at Robert Jones's, locksmith, about three months ago. Robert Jones uses his apprentices shamefully; they are often half-starved; such victuals as they have pigs wouldn't eat—not unless something was put to sweeten it. They have water that grey peas have been boiled in for breakfast, with a small bit of bread after, but not half enough; the boys are always clammed; they have often been to his house to ask for a bit of pudding. Has seen Robert Jones beat the boys dreadful; generally beat them with a stick; sometimes give them punches in the face with his fist, till they bled shamefully. Good boys they were to work, too, as ever he saw; never impudent to the master; never turned out a word amiss to their master; the boys dare not tell anybody. The wife, Mrs. Jones, is just as bad as the master; she would lay hold of the hair of the boys before breakfast, and lug them as long as she could stand over them; she also punched them in the face with her fist, like a man fighting with another man; the boys never turned again; were always ready to go down on their knees to beg pardon, so frightened; the more they begged the worse they were beat." That is an extreme case. But where the masters and boys belong to the same class, debased by total want of education, and of all that is holy in home influences during youth, a certain average of hard brutality must needs prevail.

Now, as we before observed, the protection given to the children employed in factories where their condition never was so hard as this, and given against the strongest opposition from both thinkers and workers, has, as all now

admit, done no harm and much good. Nobody is ruined by it, and many men find it their interest, as it is their humane and generous wish, to make the education given to their young half-time workers, half-time learners, really good. By that one of the Factory Acts which enforces education of the hands in cotton-mills, as it passed the Commons, there was a power given to the inspectors which would have enabled them to secure efficiency of schoolmasters. The House of Lords changed the enabling into a permissive clause granting no powers at all, and making it, therefore, of no more use to a factory inspector than it would be to a Cham of Tartary. The consequence is that a large number of the schools which give certificates are not schools. "I have been," says Mr. Horner, "in many such schools, where I have seen rows of children doing absolutely nothing; and this is certified as school attendance, and, in statistical returns, such children are set down as being educated." Old men and dames who can barely read and write, sometimes a dame who can read, with a man who spares time to set writing copies upon slates, maimed factory hands converted into teachers by the thoughtless kindness of mill-owners—in cellars, in bedrooms among the beds, in kitchens where all household work is going on, receive forty, sixty, or eighty children. The inspector has no power to refuse a schoolmaster's certificate except on the ground that he cannot teach reading or writing; those are indefinite terms, and give, in fact, no power at all of interference.

But there are many good schools formed and sustained by our millowners, and although nothing can be said for the larger, and in one-half of the half-time school system to which we have referred, yet in the case of all the reasonably good schools there is a marked success. As we have said in a former number, when discussing half-time before, the children in the half-time schools actually learn more, understand what they learn better, and get sounder habits of study with more quickness of apprehension, than is usual among children who go to school every day for the usual six hours. At the same time their half day's factory work becomes the brisker and the better. Languid attention is a loss rather than a gain in education. That three hours a day of thorough schooling, for the rich as for the poor, are better than four, four better than five. Mr. Hammersley, the head-master of the Manchester School of Art, says, that in Manchester and its neighbourhood, he had in every case, with one exception, found the short-time schools giving the most satisfactory results. "I was able," he adds, "in these schools, to eliminate a large number of successful works, out of which to select the prize students, and the general character of the drawing was better, and in every case the drawing was executed with greater promptitude. When I examined the Rochdale School, these peculiarities were startlingly evident. The discipline was excellent, the regularity of action and the quickness of perception such as I was in no

wise prepared for, and at the time I could not have resisted (even if I had wished to resist) the conviction, that this mainly arose from the feeling possessing the whole of the children, that time was valuable and opportunity passing." In every form of education, this confining of the study to the period of vigorous cheerful attention, seems to have the same result which we should have expected of it in a less degree, but may not have been prepared to expect in the form of emphatic evidence, that giving sound morning work a perpetual state of half holiday from the schoolmaster is a more royal road even to knowledge than incessant drudge. The vast importance of a full perception of this truth to the practical dealing with unsolved questions of national education is most obvious. The school-room has space for two different sets of young learners, as the field and factory may have two sets of young workers. Wherever the worth of the child's labour depends on painstaking, the half day's industry for wages may approach closely to the value of a whole day's work, while all that can be desired is yet given to the securing of another generation against some of those sharper miseries which are the plague of ignorance as fevers are the plague of filth.

ADVENTURES OF ALI MAHMUD.

NOTHING surprises readers of Oriental stories, such as the Arabian Nights, more than the rapid changes of feeling exhibited by the chief actors, and the frequent inadequacy of the motives assigned to produce such changes. Thus, the tyrant suddenly relents on his hearing his intended victim recite some moving lines from a Persian poem, or some moral text from the Koran; the bad man casts his slough of cruelty and selfishness, and appears in the radiance of complete virtue, for no better reason than that he has listened to a good story or a witty saying. Justice is disarmed by an epigram; the burglar abandons his booty on accidentally "tasting the salt" of the householder; the genie is your friend or enemy according as you possess or lose some magic ring or lamp; and lovers and loved ones (but this, perhaps, is common to the whole world) are at the mercy of all kinds of vicissitudes, that change the current of a life in the turning of an eye. The East has been called the land of unbending conservatism; but it is also the land of violent revolutions, and this unstable element seems not only to affect the fate of thrones, but to modify the character of the various peoples. The Persians, in particular, are remarkable for their impulsive and fickle character, as any one may see in the wonderful collection of tales which has given to the West its chief impressions of the East; for the book beloved of our childhood is really more Persian than Arabian, despite its title, the manners depicted being those of the cultivated dwellers in Bagdad and Shiraz, not those of the solitary and sullen wanderers in the deserts of the great Red Sea peninsula.

The story which we are now proceeding to relate is a story of actual Persian life at the

present day; but it has many of the features of the Arabian Nights, setting the supernatural of course on one side. The chief characters are persons still living, or who were living very recently; though the names have been altered to avoid giving offence. The reader will observe in it one of those sudden revulsions to which we have already alluded; but the motive is noble, being based on the principles of charity and forgiveness.

Ali Mahmūd was a native of Tabriz, and was born of respectable parents. When he attained the age of twenty-five, his father, Haji Husein Rabahim, wished him to become a pilgrim, though he had already visited the shrines at Meshed Ali and Kerbella; so, having been supplied with a horse and all the necessary accoutrements, he was despatched with the great caravan leaving Persia for Mecca in the autumn of every year. The journey to the Holy City was successfully performed. After passing Hamadan on their homeward journey from Mecca, he and three others were lagging a little behind the caravan, when they were suddenly attacked by a party of Kirmanhah Kurds, cut off from succour, and carried away. The brigands, after plundering their captives of all they possessed, detained them as slaves; and the remainder of the pilgrims, not daring to go in search of their missing companions, proceeded onward to Tabriz, and there gave out a prodigious story, to the effect that the absent companions had been carried off by the Genii or Evil Spirits of the desert. This was the news with which Haji Husein Rabahim was met, when, with hundreds of his friends, mounted on richly-caparisoned horses, he rode out beyond the gates of the town for the purpose of welcoming his son home. "Your son," he was told, in answer to inquiries, when he had looked in vain for the features of Ali Mahmūd in the long cavalcade of dusty and sunburnt pilgrims—"your son was carried off by the Genii near Hamadan. He proved insincere to the words of the Prophet (may his name be exalted!), who thought fit to deliver him into the hands of the Evil Spirits." The blow fell with so sudden a shock on poor Haji that he was seized with a dizziness, and fell from his horse; and the animal, rearing at the same moment, dashed his hoof into the old man's skull. Two hours after, the remains of Haji Husein Rabahim were deposited in their last resting-place.

In the mean while, Ali Mahmūd remained in captivity and in fetters, until, one day, being allowed comparative liberty, he was sent out on to the plains to attend a herd of cattle. He had a horse under his charge, and, leaping on its back, he made a bold dash for freedom, galloped incessantly for many hours, and at length reached the town of Kirmanshah. Here he sold the horse, and, with the proceeds in his pocket, set out on foot for Teheran, where he learnt for the first time the lamentable fate that had overtaken his father, and was also informed that the prince governor of Tabriz had appropriated all the property of Haji Husein Rabahim after his death. Ali Mahmūd was mightily enraged

against the prince; but, previous to taking any steps towards the recovery of the plunder, he was compelled by the Persian usage to go through the ceremony of mourning for the death of his parent. As soon, however, as the hired howlers had howled their appointed time (namely, eight-and-forty hours, allowing for necessary rest and refreshment), the son, winding a red pocket-handkerchief round his head, according to the custom of his country at the termination of the period of mourning, commanded the professional gentlemen to leave off crying: which they did with great alacrity. He was then free to devote himself to the absorbing question of recovering his property; and, having procured a scribe, he concocted a petition to the prime minister, setting forth the act of spoliation of which he complained. This he himself carried to the great man's receiving-room; but an awkward fate awaited him. The minister had no sooner read the petition than he wrote on it the following order to the chief of his Ferrashes—officers who are entrusted with the double duty of going before illustrious persons on ceremonial occasions, and of administering the bastinado to culprits sentenced to that punishment—"Give the bearer one hundred sticks on the soles of the feet. He has accused a prince of the blood royal of eating money and property." Ali Mahmūd delivered the petition, got "the sticks," and limped away in great wrath.

Reduced almost to poverty, he led for several years a wandering and unsettled life; speculated in several ways; sometimes made money, and sometimes lost it; and at length found himself a ruined man, on the very verge of starvation. He had married, but his wife was dead, leaving him an only child, a little girl. After one of his unsuccessful expeditions in search of the means of life, he returned home, and found the child crying for food. He rushed forth in a state of desperation, and, lurking about a baker's shop till he found an opportunity, stole a loaf of bread, and carried it to his famishing offspring. Then he sat by the little girl's bedside, thinking what he should do to save her and himself from death. It was midnight; and the darkness and silence seemed to put evil suggestions into the head of Ali Mahmūd. His memory went back to the days when he had been the enforced companion of robbers, and he thought how ill he had prospered in comparison with them. He thought, too, of the flagrant injustice that had been perpetrated against him by the prince who had seized his hereditary property, and how well that dishonesty had turned out for the wrong-doer, and how ill for him. He chewed the cud of these bitter reminiscences till it seemed to him as if knavery were the only successful thing, and as if Heaven designed the honest to suffer the penalty of their virtue; and presently a project struck him. Some years previously, when he had been a vendor of tobacco, he had sold some of his commodity to one Hassan, a rice merchant, who, opening a large box in a private room of his house, paid him out of some money contained in a white canvas bag, of which

there were fifty in the box, and which Hassan told him contained each one hundred tomans, equal to fifty pounds of English money. Those bags now rose up in the mind of Ali Mahmūd, and drew him forth through the darkness on the perilous enterprise of their capture.

He made his way through the deserted streets, plotting how he should gain access to the house. All was dim and silent; the good Mussulmans of the city were in bed, and only a few prowling and hungry dogs were abroad. As these canine wanderers scattered at his approach, and ran snarling up the dark archways of obscure and winding thoroughfares, Ali Mahmūd might have thought, had his mind been free for such cogitations, how little reason the dogs had to shun his presence, and with how much greater fitness they might have hailed him as a fellow-outcast. But he pressed on resolutely towards the rice merchant's house, and, having reached the place and climbed the wall of the court-yard, took a general survey before setting to work. A slight inspection showed him that Hassan and the only other inmate of the dwelling, his unmarried daughter, were asleep in the rooms below. He made his way through a window, passed up the staircase, and entered the room that contained the money-chest. With an iron bar which he had brought from his home, he forced up the lid of the chest, and seized sixteen of the bags, containing altogether the sum of eight hundred pounds English. It was with difficulty that he could hold so many in his two hands; but he got to the stairhead somehow. Perhaps it was this embarrassment that awoke his conscience; but, whatever the cause, certain it is that his conscience began to trouble him when he had taken one or two steps down. He dropped four of the bags, and, with so much the less weight in his hands and on his mind, issued out into the court-yard. On reaching the tank in the middle of the yard, that troublesome conscience, flushed by its recent triumph, began to make fresh demands on him, and to exact a further concession; so, being resolved to meet those demands in a liberal and handsome spirit, he dropped eight of the bags of gold, and went on very much relieved, and even pleased at the thought of his own virtue. "Four hundred tomans," said he to himself, "are enough for my needs. With that sum I shall make more, and shall never again be a beggar. Hassan will see that thieves have a conscience."

At this moment, Ali Mahmūd observed towards the east the first soft blueness of approaching day. The street dogs had ceased howling, and from out a neighbouring palm-tree an early bird was shaking a few bright notes of morning song. The depredator saw there was no time to be lost. He began to unbar the gate, and was just about to draw it open when, from the minaret gallery of a mosque nigh at hand, the deep grave voice of the Muezzin, calling the people to morning prayers, dropped clear and strong through the luminous obscurity of dawn.

"Prayer is better than sleep! Prayer is better than sleep!" Ali Mahmūd heard the

voice as it came floating down, distant and sweet, from the dim mid air; and he obeyed its solemn injunctions. Like a good Mussulman, who had been in his time to the Holy City, he at once threw aside all worldly thoughts, and bent his mind to his devotions. The four remaining bags were placed by the wall, and Ali knelt upon the pavement, absorbed in prayer and genuflections.

But the same cry had called Hassan also to the duties of religion. Descending the stairs, that he might make his ablutions at the tank in the court-yard, he stumbled over the money-bags left there by Ali Mahmūd. Without a moment's pause, he rushed to the room which contained the strong-box, and the sight of the open lid confirmed his fears. Could the thieves be still in the house? thought he. He would first look into the court-yard. Thither he went, and there was Ali Mahmūd, still going through his prayers. "Thief!" exclaimed Hassan; "my money!" Ali Mahmūd made no response; he was thinking only of his devotions. The rice merchant was struck by this religious absorption of mind, and stood a little apart till the pious burglar should have made an end of his addresses.

When he had finished, Ali Mahmūd rose to his feet, and, again kneeling before Hassan, returned him his money, and began a recital of his life. Hassan was deeply touched; for he had known Ali's father, had performed with him the pilgrimage to Mecca, and was with him when he met his death. However, he dissembled his emotion, and replied, with as much sternness as he could assume, "You are a lying thief!" He then seized Ali Mahmūd, shut him up in the stable, and exclaimed, "There you shall stay till the darogha and his men" (police inspector and policemen) "come to fetch you to jail." And with those words he sallied forth, to seek—not an officer of justice, but—a molla, or priest. Returning with one of the holy men, he called his daughter from her room, brought the thief out of the stable, and ordered the molla to unite the two in wedlock.

"And they lived happily ever afterwards?" Well, let us hope so. At any rate, Ali Mahmūd is now a thriving merchant of Tabriz, and one of the chief importers of Manchester goods.

FRESH FISH.

A PLANT which shall grow with vigour in Europe, producing fibre twice as abundant, twice as strong, and twice as fine as cotton; a bird as good to eat as the turkey, or better, as rapid in growth, four times as prolific, and reared with a quarter of the trouble; a tree, to stand our English winters, with the timber of the oak, the foliage of the carob, the flower of the rose, and the fruit of the nectarine; all these are most desirable, and involve no contradiction to natural possibility. We have not got them yet; no more had we Jules Margottin roses and Keen's seedling strawberries a hundred years ago. We may get them one day; but we may have a long time to wait for them.

France has lately received from Guiana, South America, a living creature whose description sounds as fabulous as that of any of the above named requirements. The Jardin Zoologique d'Acclimatation is now possessed of a bird belonging to the stilt-legged family, and called the Agami (*Psophia crepitans*), which is to the poultry what the shepherd's dog is to the flock. Although not bigger than a hen, it will lead a flock of fowls, and even of sheep, to the fields, will make them obey it, keep order amongst them, hold watch over them all day long, prevent them from straggling, and bring them back to the farm in the evening, exactly as a dog takes care of his sheep. It will preside over the feeding of chickens and ducklings, never touching a morsel itself, and not allowing the strong and the full-grown to take their share until the little ones first have had their fill.

Here is an object to attract the crowd. But such a society can devote itself to more useful objects. Therefore is Mr. Frank Buckland right in desiring to interest friends abroad to send things over for experiment, no matter how humble or how common they may be in their native country, provided they are but useful. His Acclimatisation Society devotes itself energetically to fish.

Many of our domestic animals derive a great part of their value from their fecundity. Their annual offspring may be counted by tens, or by twenties, or by thirties, without taking account of eggs produced besides. This fecundity is very great, if compared with that of other species belonging to the same classes; but what is it compared with the fecundity of fishes? Comparative sterility. To count the eggs of fish is impossible; they can only be calculated approximately. The pike and the tench give several hundred thousand, the carp and the mackerel more than half a million, the plaice six millions, the sturgeon seven millions six hundred thousand, the turbot nine, and the cod eleven millions. Set a single pair of such fish to breed in an unstocked fish-pond, even were it the Mediterranean Sea, and they will give you a practical illustration of infinity.

For, another advantage is, that fish cost nothing to feed. As a race, they do not suffer from scanty provisions, but the contrary. Man gives what he can to his carp and his pike; Nature gives what she can to her whiting and her cod; but when the ordinary rations fail, as fail they must, further difficulty is cut short by the hungry claimants eating one another. So much the better for us. The survivors are all the more profitable and succulent in consequence of this natural selection. They thus add a compound interest of flesh to the skin and bone which was the capital with which they started in life.

The introduction, therefore, of a new kind of fish promises this great satisfaction—that the introducer may reasonably expect to see and enjoy the results of his difficult and costly attempt. The persons who first brought turkeys from America and silkworms from China, had

scarcely an opportunity of deciding whether "turkey boil'd" and "turkey spoil'd" were a rhyme founded on reason, or of ascertaining their lady's preference for satin, velvet, or moire antique. But whoever will efficiently patronise one or more of the candidates we are about to nominate may reckon that, in the course of a very few years, Blackwall and Greenwich may adorn their feasts with the piscine novelty due to their efforts.

Fish-breeding and the introduction of foreign fishes has undoubtedly to contend with popular prejudice. Boccius's treatise, published in 1848, was regarded by many as the amusing dream of a visionary speculator. The fishermen Rémy and his associate Gehin, both now deceased, the first men in France who, after re-discovering, practically applied the artificial rearing of trout, were looked upon as crazed by their compassionate neighbours, who caused masses to be said for their restoration to sanity. And yet we have plenty of instances of the naturalisation of fish in foreign countries. In England, the grayling is believed to have been introduced by the monks. About the foreign origin of the vendace, now the pride of Dumfries-shire, there is still less hesitation. The carp is quite a travelled fish; it is not two centuries since it first visited Denmark. Whence England has it is uncertain. Cuvier believed it to be a native of Central Europe; but most living zoologists are of opinion that it was first domesticated—that is, bred in ponds—in Asia. Asia Minor is probably its native home, where it is found in several lakes, in immense quantities. The gold fish has made its way wherever there are civilised people to admire pretty things.

Those acquainted with marshy districts know that there are immense tracts (not so much in England as in less highly cultivated countries), that there are fens and sloughs, miles in extent, capable in their present state neither of grazing flesh nor of harbouring fish. In continental Europe, unsolid swamps of this kind are far from being so rare as is desirable, not to mention those that exist in the territories of our colonists and of our grandsons, the North Americans. The readiest way of reclaiming them, is to intersect them with a network of canals communicating with ponds or small lakes excavated at convenient distances; and with the earthy materials so obtained to consolidate the nascent meadow. The result is, both firm pasture for cattle and clear open water tenable by fish.

Fish of some kind will make their appearance there; for Nature abhors a vacuum. But bushels of sticklebacks, and waggon-loads of uneatable bream, such as swarm in the Norfolk broads, are of little alimentary usefulness to man. They reach his table indirectly, after being devoured by pike, and also by eels, in their youthful stages. As the best breeds of kine are sought to crop the mead, so might the best species of fish be made to scour the water-courses. In this arrangement there is no antagonism. A large country, or even a large

estate, is made up of various elements; pisciculture is the agriculture of the watery portion.

The principles of pisciculture are now so well established and understood, that, in France, besides those who have taken up the art seriously for profit, many persons pursue it as an amusement. The English society endeavours to carry out a like useful division of labour, by proposing that those members who happen to have facilities on their estates for experiments, and who are willing to aid the objects of the society, should undertake the charge of such subjects for experiment as may be offered to them by the society, periodically reporting progress to the council. Let us hope that the artificial rearing of fish will be undertaken by numerous competent amateurs. It is highly satisfactory to know that the Thames Angling Preservation Society have determined to establish a fish-hatching apparatus at Sunbury, backing their resolution by a liberal subscription; and that the accomplished and enthusiastic Secretary of the Acclimatisation Society, Mr. Buckland, has undertaken the practical working of the experiment.

But the friends of pisciculture, and of acclimatisation in general, must avoid making those sciences ridiculous by extravagant promises and visionary expectations which will be contradicted by the practical result. Fish-breeding is the art of multiplying fish, as agriculture is the art of multiplying the fruits of the earth; it similarly comprises the sowing, the sprouting, and the development of the germs up to their full maturity. The act of fishing is the harvest. To suppose that the whole art is comprised in the spawning of the fish and the hatching of the fry, is the error of the farmer who should consider his wheat-crop safe in barn as soon as the green blades appeared above ground. The poor fisherman of the Vosges, Rémy, did not fall into that mistake; he professed to re-stock the exhausted streams—nothing more—and he did it. His good sense was not led astray by his imagination. Fish-hatching establishments are excellent instruments for the introduction of species to localities where they do not yet exist. The government establishment at Huningue (on the French frontier, near Bâle, Switzerland) has hitherto answered that purpose well. It distributes eggs with intelligent liberality, and its methods of fecundation have the merit of easy application, and assures it a set of branch establishments in every expedient locality. But hatching is to little purpose, unless the feeding of the fry be well assured; and with that secured, some sort of river regulations or water-pollution must be maintained, unless all the trouble already taken is to be rendered unavailing by the greediness, the ill will, or the stupidity of men.

The object hitherto aimed at by French pisciculturists has been the multiplication of native species, especially trout, rather than the introduction of foreign fish. The English society likewise undertakes the spread of indigenous animals from parts of the United Kingdom

where they are already known, to other localities where they are not known; an excellent idea which, if carried out, will disseminate over the country, first the grayling; then the gwyniad of the Welsh and Cumberland lakes, the freshwater herring, a great boon to the poor, and the delicate vendace of Lochmaben. Salmon might be restored to every stream in the United Kingdom that is not absolutely overlaid with an incubus of towns. The grand obstacles are the vested rights of water-mills, and the defective preservation of watery-game, especially with regard to their breeding seasons. A not too tyrannical legislative interference might apply the remedy to both evils.

A new fish once naturalised in any locality can be soon passed on, from pond to pond and from river to river, throughout the land. In France, a good beginning has been made by MM. Coste and Millet, who have gifted their country with the Umber-chevalier and other salmonids, the issue of eggs from the Lake of Geneva and other parts of Europe; from the Rhine, for instance, and the Danube. The name is explained by Izaak Walton, who saith, "The French which call chub un villain (a low-bred peasant), call the umber of the Lake Lemane un umble chevalier (a lowly, or polite, and well-bred knight)." From the waters of the Spree (Prussia; a tributary of the Oder), M. Valenciennes has directly introduced the pike-perch, *Perca lucioperca*, the *Cyprinus jesus*, the German eel-pout, and the great *Silurus glanis*, which attains considerable weights by swallowing shoals of worthless roach and bream, and so converting them into savoury food.

These intra-European attempts have for their appropriate sequel the transport hither, by sea, of African and Asiatic fish. The gold-fish came from an equally great distance. The carp, already half-cosmopolite, has recently been transported with success to divers places, notably to the Cape of Good Hope, in company with tench, by the English, and to Martinique by the French.

The English society is now in want of a good new pond fish. The first favourite started was the *lucioperca*; but Dr. Günther, of the British Museum, a gentleman whose extensive knowledge of fish has obtained for him a European fame, gave his verdict against the pike-perch, highly recommending instead the *Silurus glanis* and the *gourami*.

The crime imputed to the poor *lucioperca* raises a smile: he is too voracious in his habits, and might prove detrimental to our waters. But are our waters the worse for the presence of the voracious perch and the still more voracious pike? It has been calculated that it takes more than five-and-twenty pounds' consumption of other fish to produce a perch of two pounds weight, and that a pike, to add two pounds to his weight, must eat sixty pounds of roach and bream, with a few of his own grandchildren by way of dessert. Notwithstanding which, the Scotch lochs, in which there are pike, produce finer and better trout than those where there are no pike. Is the innocence of the *Silurus* his

recommendation in this case? Surely no: his voracity is his merit. The Silurus is a hideous monster, such as threatens you in a nightmare dream—an organised Thames Tunnel, whose upper orifice is open to receive any number of passengers. A not very distant spot, where you will find the Silurus, is the lake of Morat, Switzerland, where it attains the weight of seventy pounds. Dead, he is capital meat, white, firm, well-flavoured; living, he is an empty sack, whom you can no more fill than you can the buckets of the Danaïds. He does not insist upon having either deep water, or warm water, or swift-running water, to thrive properly. Der Wels is his German name.

The president of the French society, M. Isidore Geoffroy Saint-Hilaire, giving his ideas of the foreign fish to be invited and welcomed with civil entertainment, places first on the list his late father's favourite, the great barbel of the Nile, *Cyprinus binny*, or benny (its Arabic name), or *Cyprinus lepidotus* of Saint-Hilaire and the ancients. This and the *oxyrhynchus* were the only fish extensively worshipped in Egypt. An appreciation of its excellence is given by the proverbial Egyptian phrase, "Don't eat me if you know a better fish." At Syout and Kené, especially, there are men who gain their livelihood entirely by the binny fishery. The binny (usually half a yard long, though it is not rare to find individuals of double that size) is remarkable for the breadth and silvery whiteness of its scales. The Nile is only a few days' steaming from the Rhône and the vast ponds of the south of France; the Acclimation Society has many members in Egypt; including the Viceroy and the princes of his family: therefore, French fish-fanciers live in hopes.

The second species which the French savant recommends to our attention is the *Osphronemus olfax* (the smeller fish) of Commerson, famous as the gourami, from the rivers of Eastern Asia, especially of China. This fish is still superior in size, and perhaps in quality, to the preceding. It is frequently more than a yard long; and, as its depth is very great in proportion to its other dimensions, it furnishes an abundance of food. Indeed, the outline of its shape resembles a fat pig without legs. Admiral Dupetit-Thouars saw specimens that weighed five-and-twenty pounds. Representing its alimentary qualities, there exists only one opinion. Lacépède reports it as remarkable for the goodness of its flesh as for its form and size; Cuvier calls it delicious, and even better flavoured than the turbot. Commerson, who describes it from personal experience, says, "I have never eaten a more exquisite fish, either fresh water or marine, than the gourami." A recent author, Reisser, speaking also from his own knowledge, is of the same opinion, adding, "it is a wholesome as well as abundant food."

The introduction of the gourami to Europe has been proposed on several occasions. The fish well deserves that some attempt, even if uncertain and expensive, should be made to procure it. At the beginning of the present

century, Péron and Lesueur tried to bring it to France from the Mauritius; unfortunately, their gouramis, which were in considerable numbers and in excellent health, were all killed at once by the stupidity of a sailor. The gourami has not yet been landed (or watered?) in Europe alive. The latest adventurer expired within sight of the French coast. A fresh attempt is contemplated by M. Liénard, of Mauritius; and while that gentleman is endeavouring to make the gourami a European fish, the English society is carrying out a well-considered plan to procure it an Australian settlement at Sydney. We may therefore anticipate that, before very long, from one source or another, Mr. Lloyd, the intelligent aquarian dealer, will have little gouramis to offer for sale.

May we now call the society's attention to other pretenders to the rank and state of a good new pond fish? These have the recommendations of being found in waters quite as cold as our own.

The inhabitants of the shores of Lake Leman believe that they are possessed of a fish which is peculiar to those waters, and is found nowhere else in the world. A similar idea respecting the peculiarity of their own local fish is entertained in the vicinity of other Swiss and Savoisan lakes. The Geneva fish (which is an excellent, abundant, white-fleshed, silver-scaled fish, without the slightest muddy flavour, and certainly one of the very best of fresh-water fish) is sometimes written the "fera;" but in the carte of tables d'hôte, both at Vevey and Geneva, it is spelled "ferrat," which is also the more common printed form of the word. So much for its trivial name. The reader now will naturally ask, "But what is the ferrat? What is its place and title in scientific zoology?"

It appears that there is a genus or sub-genus of fishes, called in Swiss-French the Lavaret. If Mr. Darwin wants an illustration of his "Divergence of Character," we recommend him to glance at the lavarets. They are very nearly related to the ombres or umbers of the Continent, and the grayling which we have in England. They appear to be a connecting link between the carp and the salmon families. Artedi united the umbers and the lavarets under the generic denomination of *Coregonus* (from *κορη*, the pupil of the eye, and *γωνια*, an angle), because their pupils are angular. Lavarets are said to be found in the North Atlantic Ocean, in the Baltic, and in the Lakes of Geneva, where they are called ferrats. That the very same species should be found in a deep briny ocean, in a shallow brackish sea, and in an excessively deep fresh-water lake, whence it does not migrate, would hardly seem probable. Yet Cuvier thinks that *Coregonus oxyrhynchus* (sharp-beaked) is the same species as the *Coregonus lavaretus* (the ferrat), and the houting of the Dutch and Flemings. The Atlantic and the Baltic lavarets live in the deeps, and quit the open seas when the herrings' spawning time commences, for the sake

of feeding on their roe. When their own time comes, towards the close of summer and the beginning of autumn, they draw near to the coast, and frequent the mouths of the most quick-running streams. The female, followed by the male, rubs herself against the pebbles, to be more easily relieved of her eggs.

The ferrat, then (or "lavaret," a name which seems to be derived from the extreme cleanliness of the body), is the *Coregonus lavaretus* of Lacépède, and the *Salmo lavaretus* of Linnaeus. Pennant considered the gwyniad of Wales and of the Cumberland lakes the same as the ferrat of the Lake of Geneva.

The present writer has never seen a gwyniad, but the figures of it are much more herring-shaped, and less deep and square built, than the ferrat, which weighs from two to four pounds. These fish die immediately they are taken out of the water. In places where the catch is abundant, they are salted and smoked. Their food is insects, the larvæ of dragon-flies, and such-like. In the Lake of Geneva, between Rolle and Morges, where they are called "gravans," or "gravanches," their nose is more pointed, their flavour inferior, and their dimensions usually smaller. During eleven months of the year the ferrats remain constantly in the deeps. They are only caught at the close of summer, with the help of a net and a lantern, by night. Whether the ferrat be a distinct species from the gwyniad, or only a local variety, it is equally worthy of the attention of the Acclimatisation Society. The French society has lately stocked the rivers of the department of the Lower Alps with seven hundred and forty thousand of its eggs.

In the Lake of Neuchâtel, there are lavarets which are called "palées" and "bondelles." A great many are salted and sent to a distance, like sardines.

The ferrat has become naturalised in Lake Maduit and several other Pomeranian lakes, whither it was transported from the Lac du Bourget, by the orders of Frederick the Great, and where it thrives and multiplies abundantly. Its flesh, white and savoury, without any small bones, affords a most delicate article of food. The favourite resorts of the great marene are deep waters with a bottom of sand or clay, where it congregates in immense shoals, mounting to the surface in autumn to deposit its eggs amongst the beds of water-weeds that line the shallows. It does not begin to breed until it is five or six years old. In the winter it is caught beneath the ice with nets, whose meshes are large enough to allow the little ones to escape. Surely this is a good new pond fish; and if it has been acclimatised in Pomerania, it may be acclimatised in England. Will Mr. Buckland patronise the grand marene? As the Prussians treat us so civilly, perhaps they will send us Pomeranian spawn; or will it be better to apply to the fountain-head—to our ally—who has annexed both the Lac du

Bourget and its little sister, the Lake of Aigue-Belette?

Again: a very acceptable species would be the blue umber, l'ombre bleu, or Bésolo, *Coregonus Wartmanni*, so named after a physician of St. Gall, who described it with great exactitude. It has a crescent-shaped tail, a blunt conical nose, no teeth, equal jaws, a straight lateral line marked with a series of black points, a blue general tint without spots, yellow fins edged with blue; length, from eighteen inches to two feet. Wartman's coregon is found in several Swiss lakes, and especially in the Lake of Constance, where the fishermen look upon it as the fishermen of the north regard the herring. All summer long, from twenty to fifty boats are employed in this fishery, and during the season several millions of fish are taken. Those that are not eaten fresh, are salted, and sent to France and Germany. Wartman's coregon feeds on insects, worms, and the remains of vegetables. It spawns at the commencement of winter. It mostly swims at a considerable depth, and only rises to the surface during heavy rains or thunder-storms. When the cold sets in, it retreats to the bottom. Methinks Wartman's blue umber deserves to be thought of.

A concluding word touching two of the Swiss fishes, the most desirable to naturalise in the ponds and lakes of the United Kingdom: the only point about which the learned are agreed is their culinary aptitudes; as to their specific distinctions, doctors differ. Professor W. von Rapp, of Tübingen, who has examined and collected the fishes of the Lake of Constance, who has visited Neuchâtel and Geneva, with the object of examining and collecting the fish there, with the special purpose of comparing them with those of the Lake of Constance; who, for many years, has been occupied with the study of fish, and particularly of sea-fish; who was the instructor of Dr. Günther, of the British Museum,—Professor von Rapp states that the ferrat of Geneva is also found in the Lake of Constance, and is there called *Sandfelchen*, and that the ferrat is different from the *Salmo lavaretus*. He says that *Salmo lavaretus*, *Coregonus lavaretus*, and *Salmo Wartmanni*, are synonyms for the same fish, the *Blaufelchen*, which is even better than the ferrat, being, in fact, the very best fish of the Lake of Constance, although it suffers much from carriage. The younger fishes of this species (about seven inches long) are called *Gangfische*.

The fish which in the Lake of Neuchâtel is called *La palée*, and by Cuvier, *Coregonus palea*, is not different from the *Blaufelchen* of the Lake of Constance. The professor, however, remarks that, at Neuchâtel, two sorts of *palée* are distinguished—the black and the white; that perhaps these are really two separate species, and that only one of them is the real *Blaufelchen*, the cream of the cream amongst fresh-water fish.

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